

of the State of South Carolina ("DHEC"). GPS agrees that at such time as the actions described in the foregoing sentence shall have been completed, GPS shall transfer and convey the Pump Station and Force Main to either Condor Environmental O&M, LLC or its sister company, Condor Environmental, Inc., whichever is the appropriate entity, along with the real property upon which the Pump Station is located and all necessary and appropriate easements. At the time of said transfer and conveyance, GPS shall also assign to Condor all warranties which shall have been made to GPS by the Contractor and the Engineer in regard to the Pump Station and Force Main and the plans and specifications for the Pump Station and Force Main.

Condor agrees that, during construction and prior to the transfer and conveyance of the Pump Station and Force Main to it, that it will conduct such inspections of the Pump Station and Force Main as Condor shall deem necessary to satisfy itself as to the condition of the Pump Station and Force Main and GPS agrees to pay Condor's reasonable fees and costs of such inspections. GPS additionally agrees to pay real estate attorney fees associated with this Agreement, construction of the Pump Station and Force Main, and transfer of the Pump Station and Force Main to Condor.

GPS agrees to pave the Pump Station area when paving the parking lot area and be responsible for payment of any and all Western Carolina Sewer Authority fees, including applicable impact fees and monthly sewer charges.

2. OPERATION OF PUMP STATION AND FORCE MAIN. Condor agrees to accept the transfer and conveyance to it by GPS of the Pump Station and Force Main and thereafter to operate, repair, maintain and replace the same in accordance with the terms and provisions of this agreement.

Condor shall operate and maintain the Pump Station and Force Main so that all businesses served by the Pump Station and Force Main shall receive continuous adequate sanitary sewer service without interruption. The repair, maintenance and replacement responsibilities of Condor under this Agreement shall include the replacement of all parts of the Pump Station and Force Main which shall become worn out or obsolete and the making of all capital repairs and replacements as shall be necessary in order for Condor to carry out its obligations under this Agreement without interruption.

However, it shall be the responsibility of GPS to require all restaurants on the system to have in place and to maintain appropriate and adequate grease traps. If grease becomes a problem in the Pump Station and/or Force Main, Condor shall have a right to charge GPS on a monthly basis, as an added cost to the monthly fee, for any and all costs associated with correcting any grease problems.

Condor shall operate and maintain the Pump Station and Force Main so that the same will at all times comply with and fulfill all governmental laws, rules and regulations that shall be applicable to the operation and maintenance of the Pump Station and Force Main. Without limiting the generality of the foregoing, Condor shall operate and maintain the Pump Station and Force Main in accordance with all rules and regulations which shall be promulgated at any time, and from time to time, by Metropolitan for privately owned and maintained sanitary

sewer Pump Stations and Force Main which are part of the sewage collection system operated by Metropolitan. In addition, Condor shall comply with all policies and requirements of South Carolina Public Service Commission or other appropriate governmental agencies which may be applicable to the Pump Station and Force Main costs and expenses which it shall incur in connection with the carrying out of its duties and responsibilities under this Agreement.

3. PAYMENT BY GPS. GPS hereby agrees that in consideration for the performance by Condor of its duties and obligations under this Agreement, GPS shall pay to Condor all costs and expenses of design and construction of the Pump Station and Force Main plus a ten (10) percent profit of the estimated construction costs in the amount of seventy eight thousand five hundred and forty (\$78,540.00) dollars. Additionally, GPS agrees to place an escrowed amount of fifty thousand (\$50,000.00) dollars into the McCall Environmental, P.A. ("McCall") trust account for payment of design and construction of this wastewater system. McCall will be authorized to pay the design and construction expenses from this account as they are incurred. Condor pledges to use its best efforts to not exceed the estimated design and construction costs, but GPS acknowledges and understands that the current estimated construction costs may increase if difficulties are encountered during construction, including but not limited to, rock, traffic management, utility interference, etc., and GPS agrees to pay for any increased construction costs.

GPS agrees to pay the amount of Seven Hundred and Fifty Dollars (\$750.00) (the "Monthly Fee") per month beginning at the initial operation of the Pump Station to serve the development. The first Monthly Fee shall be prorated in proportion to the fraction of the month the Pump Station and Force Main are in operation.

GPS shall pay the Monthly Fee to Condor on or before the tenth day of each calendar month by means of a check made payable to Condor and mailed or otherwise delivered to the address herein below provided. In the event that GPS shall at any time fail to pay to Condor the Monthly Fee within thirty (30) days of the due date, Condor shall have the right to charge the Monthly Fee plus ten percent (10%) of the Monthly Fee as a delinquency. Such amount shall be paid to Condor within ten (10) days of invoicing. If the amounts due are not paid within this time period, Condor shall have the right to cease Pump Station operations and lock the Pump Station until payment of all amounts due, plus a reconnection charge of two hundred and fifty dollars (\$250.00), is paid.

Upon no less than ninety (90) days prior notice to GPS Condor shall have the right to increase the amount of the Monthly Fee at any time, in order to compensate Condor for any reasonable increase in the cost and expense to Condor of performing its responsibilities under this Agreement, and further provided that the increase in the Monthly Fee shall not be increased by more than ten (10%) percent in any twelve month period. Notwithstanding the foregoing, Condor shall not increase the amount of the Monthly Fee because of any fine or penalty assessed by any regulatory agency to Condor for any act or omission by Condor for repairs or replacements to the Premises, including the Pump Station and Force Main, that are the result of the negligent or intentional acts or omissions of Condor.

4. APPROVAL BY METROPOLITAN. Metropolitan hereby consents to the terms

of this Agreement and agrees that at such time as the Pump Station and Force Main shall be transferred and conveyed by GPS to Condor, Metropolitan will accept the discharge from the Pump Station and Force Main owned and operated by Condor.

5. RESERVE ACCOUNT BY GPS. GPS shall pay to Condor, at the execution of this Agreement, the amount of Six Thousand Dollars (\$6,000.00) as a reserve account for the purposes and uses herein provided, immediately prior to the initial operation of the Pump Station and Force Main. The parties hereto agree that the establishment of such reserve account is a one-time obligation which may be drawn on by Condor for replacement of the Pump Station or Force Main, or any portion thereof, if damaged by accident, vandalism or other disaster neither caused by Condor nor covered by casualty insurance which shall be carried and maintained by Condor. Further, all or any portion of said reserve account may be used by Condor to pay for the costs and expenses of emergency repairs. At the end of five years or if the Pump Station and Force Main is replaced by gravity sewer, or the ownership and operation of the Pump Station and Force Main is transferred to and assumed by a public entity having jurisdiction and authority, the reserve account shall terminate and all funds remaining therein including any interest shall become the property of Condor after a period of three (3) years.

6. NOTICES. Any notices which may be permitted or required under the terms and provisions of this Agreement shall be in writing and shall be deemed to have been duly given, except as otherwise provided in this Agreement, as of the date and time are received by the parties to whom the notices are sent. Such notices shall be deemed received upon hand delivery or by Federal Express or equivalent courier and evidenced by a notation on the records of that courier that such notices were delivered to the parties at the following addresses or at such other address as a party shall notify the other parties in writing:

- (a) Gus P. Stathos
1030 Briarwood Drive
Easley, SC 29642
- (b) Condor Environmental O&M, LLC
P.O. Box 10005
Greenville, SC 29603
- (c) Metropolitan Sewer Sub-District
120 Augusta Arbor Way
Greenville, SC 29605

7. TERM. The term of this Agreement shall commence on the date on which this Agreement shall be executed by all parties hereto and shall continue in full force and effect until such time, if any, as Condor shall have transferred and conveyed the Pump Station and Force Main to a governmental subdivision of the State of South Carolina which shall have all power and authority necessary to operate and maintain the Pump Station and Force Main and shall have agreed with GPS to do so.

This Agreement may terminate in the following ways:

- (a) This Agreement will terminate if a public entity agrees to assume the operation of the premises;
- (b) If the Pump Station and Force Main is replaced by a gravity sewer line, the Agreement shall terminate effective upon the date that the gravity sewer line is placed into operation;
- (c) Condor may terminate the Agreement upon ninety (90) days prior written notice to GPS, provided that prior to termination Condor has identified for the GPS and GPS has approved a successor entity that is properly qualified and licensed to enter into an Agreement substantially similar to this Agreement or into an Agreement reasonable satisfactory to GPS to operate the Pump Station and Force Main. Condor shall at all times be responsible for the continued performance of its duties and obligations under this Agreement until the successor entity has assumed the obligations under this Agreement.
- (d) GPS may terminate the Agreement upon thirty (30) days prior written notice to Condor, if (i) any performance standard included within this Agreement is not met for a cumulative period of fourteen (14) days or more during any rolling twelve (12) month period; or (ii) a sewage back up in any residence, caused by the Pump Station or Force Main, occurs four (4) or more times during any twelve (12) month period; or (iv) a sewage overflow out of the Pump Station or Force Main, occurs four (4) or more times during any rolling twelve (12) month period. In the event of any default of Condor of any of these conditions, Condor agrees to promptly deed the Pump Station and Force Main premises back to GPS without consideration.

8. METROPOLITAN APPROVAL. Notwithstanding the foregoing, however, any operation of the Pump Station and Force Main by any person, party or entity other than Condor, as herein provided, shall be subject to the approval of Metropolitan, the South Carolina Department of Health and Environmental Control. Upon the approval of said transfer and conveyance to a third party operator by such a governmental authority and the completion of said transfer, Condor shall be automatically released from all further duties or obligations under the terms of this Agreement that arise on or after the date of transfer.

9. APPLICATION OF LAWS. This Agreement is governed by the laws of South Carolina.

10. AMENDMENTS. This Agreement and any provision herein contained may be modified or amended only by the express written consent of all of the parties hereto or their successors or assigns.

11. ASSIGNMENT. This Agreement and the obligations of Condor may not be assigned to any other party without the express written consent GPS.

12. WAIVER OF DEFAULT. No waiver of any default by any party hereto will be implied from the failure by any other party to take action with respect to such default. No express waiver of any default will affect any default or extend any period of time for performance other than as specified in such express waiver. One or more waivers of any default in the performance of any provision of this Agreement will not be deemed a waiver of any subsequent default in the performance of the same provision or any other provision. The consent to or approval of any subsequent similar act or request by any party hereto will not be deemed to waive or render unnecessary the consent to or approval of any subsequent similar act or request. The rights or remedies provided by this Agreement are cumulative and no right or remedy will be exclusive of any other, or of any other right or remedy at law or in equity which any party hereto might otherwise have by virtue of a default under this Agreement. The exercise of any right or remedy by any party hereto will not impair such Party's standing to exercise any other right or remedy.

13. SEVERABILITY. If any provision of this Agreement is, to any extent, declared by a court of competent jurisdiction to be invalid or unenforceable, the remainder of this Agreement (or the application of such provision to persons or circumstances other than those in respect to which the determination of invalidity or unenforceability was made) will not be affected thereby and each provision of this Agreement will be valid and enforceable to the fullest extent permitted by law.

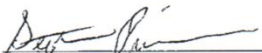
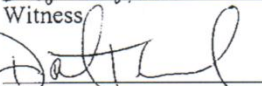
14. CAPTIONS. The captions of the sections of this Agreement are for convenience only and are not intended to affect the interpretation or construction of the provisions herein contained.

15. BINDING EFFECT. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs, executors, administrators, legal representatives, successors and assigns.

16. ENTIRE AGREEMENT. This Agreement constitutes the sole and only agreement of the parties hereto and supersedes any prior understanding or written or oral agreements between the parties respecting the within subject matter, and may be amended only by a writing signed by the parties hereto.

IN WITNESS WHEREOF, the parties hereto each of who being duly authorized have set their hands and seals on the day and year first above written.

GUS P. STATHOS OPERATING AS GPS CENTER

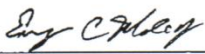
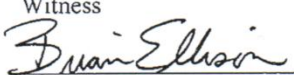

Witness

Witness

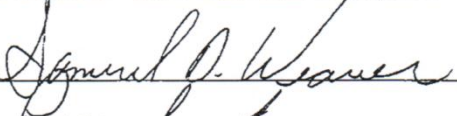
By: Cary P Stathos

Its: _____

DATED: 8.11.2004

CONDOR ENVIRONMENTAL O&M, LLC


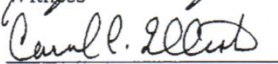

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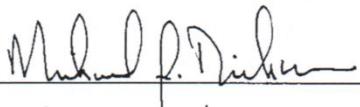
By: 

Its: President

DATED: 8/12/04

METROPOLITAN SEWER SUB-DISTRICT


Witness

Witness

By: 

Its: GENERAL MANAGER

DATED: 8-12-04



Appalachia II
Environmental Quality Control
Serving Greenville and Pickens Counties
301 University Ridge, Suite 5800
Greenville, SC 29601-3677
864-241-1090 Fax: 864-241-1092

Wastewater System Construction

Approval to Place into Operation

Date: March 11, 2005

Issued to: Condor Environmental, Inc.
508 Poinsett Highway
Greenville, SC 29609

for the operation of the permitted system referenced below:

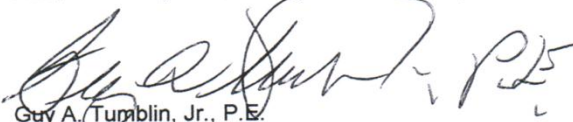
Permit Number: 30,302-WW
Project Name: GPS Center
County: Greenville

Project Description: Install a 117-GPM pump station with 2500 LF of 4" force main to serve a commercial space and a restaurant.

Design Flow Rate: 9120 gpd **WWTP:** WCRSA/Grove Creek WWTP (SC0024317)

Special Conditions: As specified in construction permit

This approval is based on the Engineer's letter of certification (March 7, 2005) signed by Alan Johnson, P.E., and acceptance letter (March 11, 2005) from Condor Environmental O&M, LLC (I).


Guy A. Tumblin, Jr., P.E.
District Engineer
Appalachia II EQC District

lr

cc: Alan Johnson, P.E.
Deborah Mack, BOW
Greenville County Codes
Mike Parrott, Health Department
Condor Environmental O&M, LLC
WCRSA/Grove Creek WWTP

2011073256 DEED
7 PGS
Book: DE 2396 Page: 359-365
October 28, 2011 03:36:10 PM Cons: \$10.00
Rec: \$11.00 Cnty Tax: EXEMPT State Tax: EXEMPT

FILED IN GREENVILLE COUNTY, SC

Prepared by:
BROWN, MASSEY, EVANS, MCLEOD & HAYNSWORTH, LLC
Attorneys at Law

Grantee's Address: 211 Randall Street
Greer, SC 29651

STATE OF SOUTH CAROLINA)

)

COUNTY OF GREENVILLE)

)

TITLE TO REAL ESTATE
(NO TITLE EXAMINATION)

KNOW ALL MEN BY THESE PRESENTS, that **GPS Center, LLC**, in consideration of the sum of Ten Dollars and no other consideration (\$10.00) Dollars, the receipt and sufficiency of which is hereby acknowledged, has granted, bargained, sold and released, and by these presents, does hereby grant, bargain, sell and release unto **CONDOR ENVIRONMENTAL, LLC**, its successors and assigns forever:

ALL that certain piece, parcel or lot of land situate, lying and being in the State of South Carolina, County of Greenville known and designated as the physical location of the Pump Station and appurtenant structures ("Pump Station") and being shown according to a plat entitled "Survey for Condor Environmental, LLC prepared by W. Glen Dalton, P.L.S. dated January 15, 2009 and recorded in Plat Book 1127 at Page 92", which are by reference made a part of this description, and having according to said plat, such metes and bounds as shall appear thereon.

** See Also Plat Book 1128 at Page 76.*

Also those force main lines, valves, adjuncts and appurtenances and easements associated, therewith, including but not limited to those installed and located in, under or along the property of Grantor as shown on a plat entitled Survey for Condor Environmental, LLC prepared by W. Glen Dalton, P.L.S. dated January 15, 2009 recorded in Plat Book 1127 Page 92 * which are by reference made part of this description for purposes of the operation, maintenance, repair, replacement or relocation of such lines and appurtenances and sanitary sewer lines, valves, adjuncts and appurtenances and easements associates, therewith, installed and located in, under or along easements which Grantor acquired as to the Pump Station, including but not limited to that Right of Way Agreement dated February 23, 2004 recorded in Deed Book 2077 at Page 1285 on March 3, 2004.

** See Also Plat Book 1128 at Page 76.*

ALSO: An easement for ingress, egress and maintenance twelve and one-half feet in width on each side of the sewer lines over and across the premises shown according to a drawing entitled "GPS Center, 7704 Augusta Road, by Caliber Engineering Consultants, LLC, dated August 16, 2004, which is attached hereto as Exhibit "A" and incorporated herein by reference.

The above easements are to and does convey to the Grantee, its successors and assigns the following:
The right and privilege of entering the aforesaid strip of land, and to construct, maintain and operate

2011077266 DEED
7 PGS
Book: DE 2396 Page: 4635-4641
November 14, 2011 11:20:11 AM Cons: \$10.00
Rec: \$11.00 Cnty Tax: EXEMPT State Tax: EXEMPT

FILED IN GREENVILLE COUNTY, SC

within the limits of same, pipe lines, manholes, pump stations, and any other adjuncts and equipment deemed by the Grantee to be necessary for the purpose of pumping and conveying sanitary sewage wastes, and to make such relocations, changes, renewals, substitutions, replacements and additions of or to the same from time to time as said Grantee may deem desirable, the right at all times to cut away and keep clear of all pipe lines and equipment any and all vegetation that might, in the opinion of the Grantee, endanger or injure the pipe lines, pump stations, equipment or their appurtenances, or interfere with their proper operation or maintenance; the right of ingress to and egress from said strip of land across the land referred to above for the purpose of exercising the rights herein granted.

The easements granted herein are appurtenant to and shall run with the Pump Station parcel.

This being a portion of the identical premises conveyed to the Grantor herein by deed from Gus P. Stathos recorded in Deed Book 2372 at Page 4394 on May 21, 2010.

This conveyance is made subject to all restrictions, reservations, set back lines, roadways, zoning ordinances, easements, and rights-of-way, if any, that may appear of record on the recorded plat(s), or on the premises, affecting the above described property.

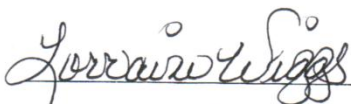


TOGETHER with all and singular the rights, members, hereditaments and appurtenances to the above described premises belonging and in anywise incident or appertaining.

TO HAVE AND TO HOLD all and singular the premises beforementioned unto the said Grantee, its successors and assigns, forever.

AND THE GRANTOR does hereby bind the Grantor and Grantor's assigns, successors, executors and/or administrators to warrant and forever defend all and singular the said premises unto the said Grantee, its successors and assigns, against the Grantor, its successors and assigns, and against every person whomsoever lawfully claiming or purporting to claim the same or any part thereof.

WITNESS, the Grantor's hand and seal this 20 day of October, 2011.

**SIGNED, SEALED AND DELIVERED
IN THE PRESENCE OF:**

	GPS Center, LLC
	By: 
	Gus P. Stathos
	Its: <u>President</u>

STATE OF SOUTH CAROLINA)

COUNTY OF GREENVILLE)

ACKNOWLEDGMENT

I, Daniel Trammel, a Notary Public for the State of South Carolina, do hereby
certify that Gus P. Stathos as President of GPS Center, LLC,
personally appeared before me this 20 day of October, 2011, and
acknowledged the due execution of the foregoing instrument.

Daniel [SEAL]
My commission expires: 1-17-2017



Mortgage.

27 day of October, 2011.

WITNESS

Kenneth Rupp

The Palmetto Bank

By: [Signature]
Mortgagee

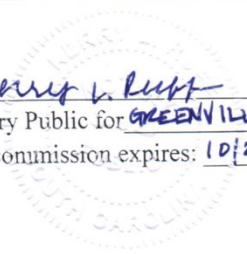
STATE OF SOUTH CAROLINA)
)
COUNTY OF GREENVILLE) PROBATE (CORPORATE)

other witness subscribed above, witnessed the execution thereof.

Marie L. Boring
Signature of Witness

SWORN to before me this
27 day of OCT., 2011.

Kenny L. Ruff
Notary Public for GREENVILLE COUNTY, SC
My commission expires: 10/25/20



[illegible]

1

Timothy J. Hanney

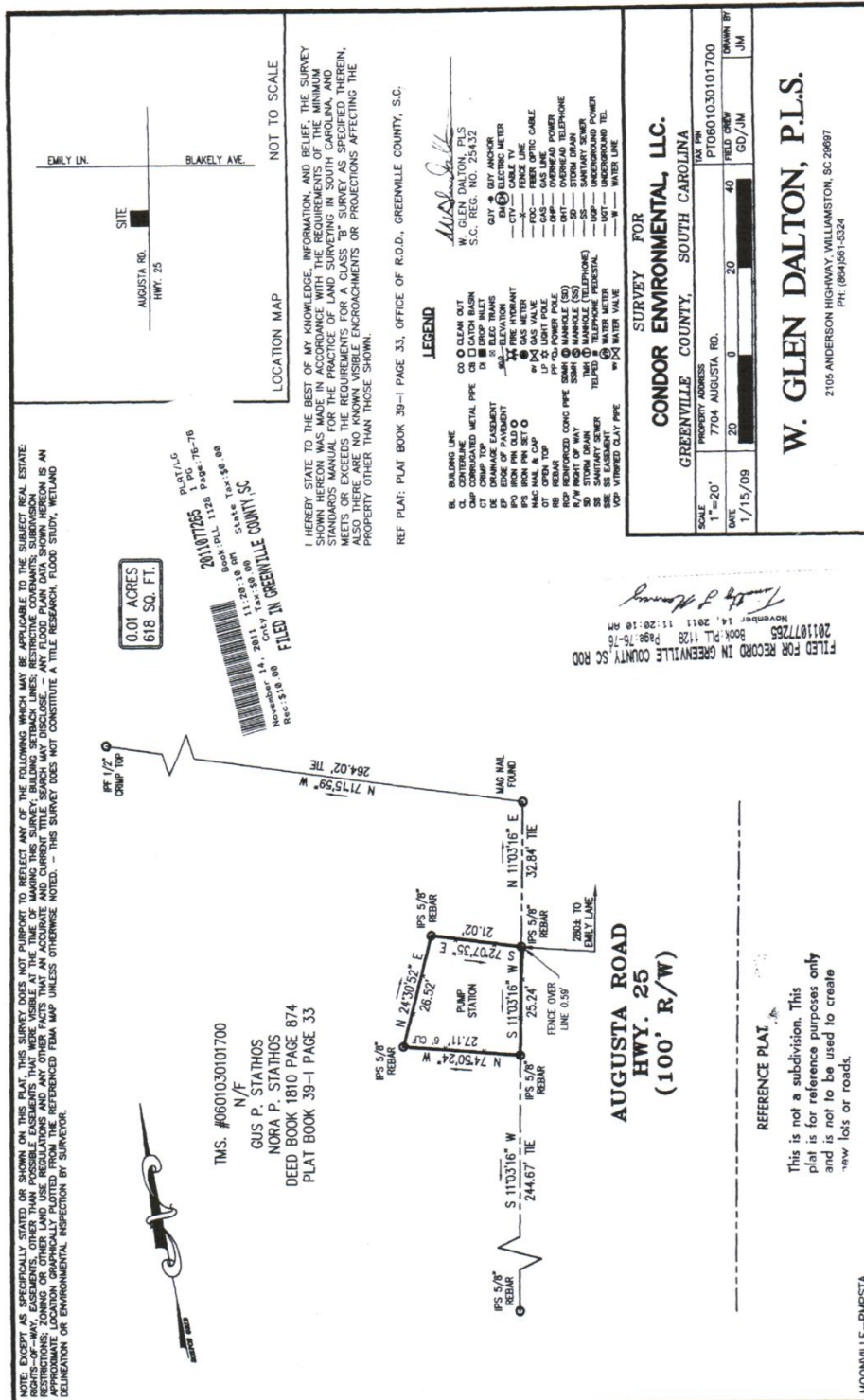
INFORMATION

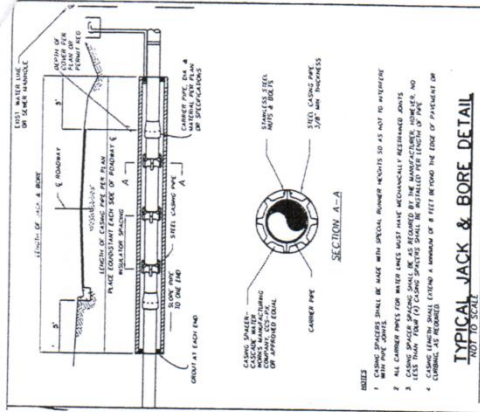
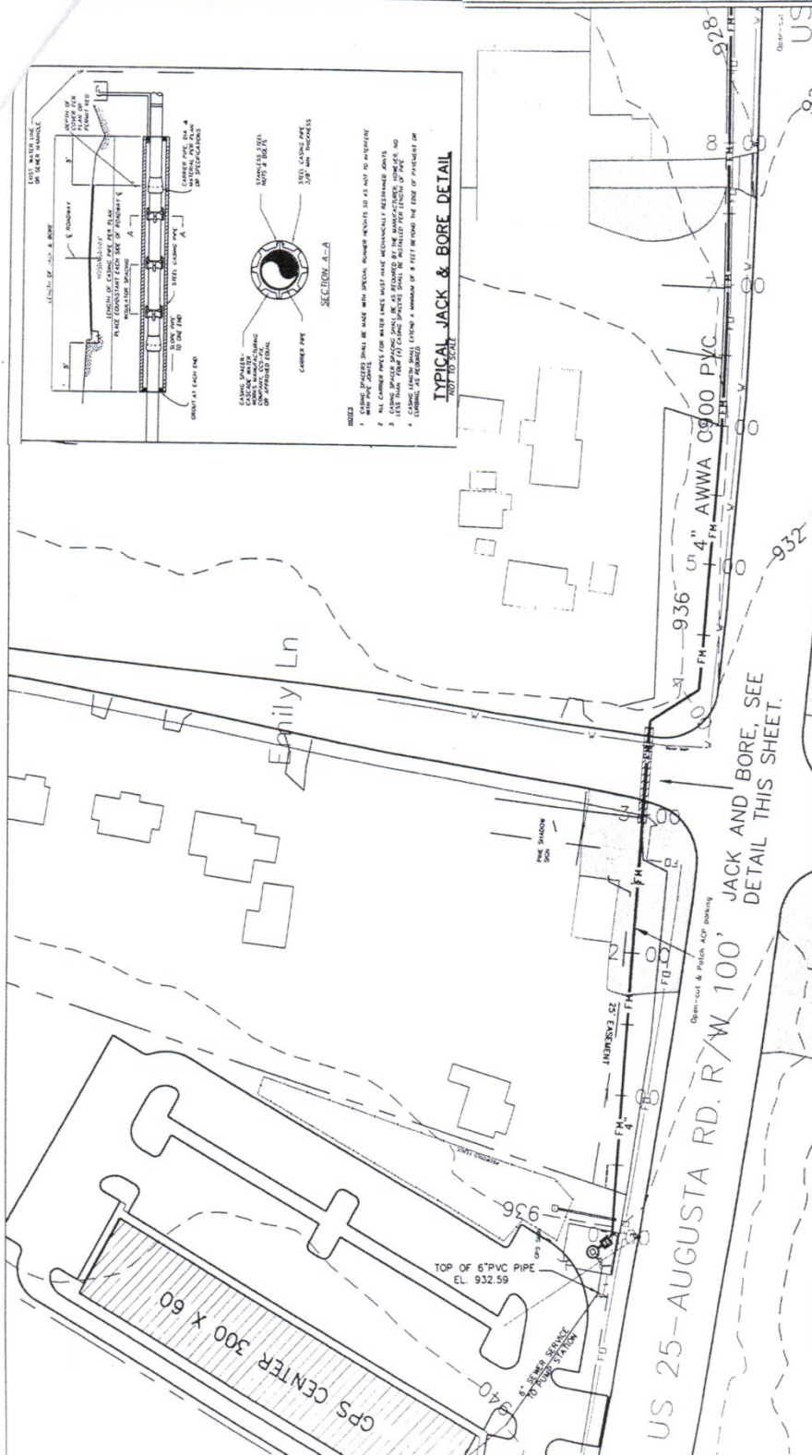
Except as provided in this paragraph, the term "value" means "the consideration paid or to be paid in money or money's worth for the realty." Consideration paid or to be paid in money's worth includes, but is not limited to, other realty, personal property, stocks, bonds, partnership, interest and other intangible property, the forgiveness or cancellation of a debt, the assumption of a debt, and the surrendering of any right. The fair market value of the consideration must be used in calculating the consideration paid in money's worth. Taxpayers may elect to use the fair market value of the realty being transferred in determining fair market value of the consideration. In the case of realty transferred between a corporation, a partnership, or other entity and a stockholder, partner, or owner of the entity, and in the case of realty transferred to a trust or as a distribution to a trust beneficiary, "value" means the realty's fair market value. A deduction from value is allowed for the amount of any lien or encumbrance existing on the land, tenement, or realty before the transfer and remaining on the land, tenement, or realty after the transfer. Taxpayers may elect to use the fair market value for property tax purposes in determining fair market value under the provisions of the law.

Exempted from the fee are deeds:

- (1) transferring realty in which the value of the realty, as defined in Code Section 12-24-30, is equal to or less than one hundred dollars;
- (2) transferring realty to the federal government or to a state, its agencies and departments, and its political subdivisions, including school districts;
- (3) that are otherwise exempted under the laws and Constitution of this State or of the United States;
- (4) transferring realty in which no gain or loss is recognized by reason of Section 1041 of the Internal Revenue Code as defined in Section 12-6-40(A);
- (5) transferring realty in order to partition realty as long as no consideration is paid for the transfer other than the interests in the realty that are being exchanged in order to partition the realty;
- (6) transferring an individual grave space at a cemetery owned by a cemetery company licensed under Chapter 55 of Title 39;
- (7) that constitute a contract for the sale of timber to be cut;
- (8) transferring realty to a corporation, a partnership, or a trust in order to become, or as, a stockholder, partner, or trust beneficiary of the entity provided no consideration is paid for the transfer other than stock in the corporation, interest in the partnership, beneficiary interest in the trust, or the increase in value in such stock or interest held by the grantor. However, the transfer of realty from a corporation, a partnership, or a trust to a stockholder, partner, or trust beneficiary of the entity is subject to the fee even if the realty is transferred to another corporation, a partnership, or trust;
- (9) transferring realty from a family partnership to a partner or from a family trust to a beneficiary, provided no consideration is paid for the transfer other than a reduction in the grantee's interest in the partnership or trust. A "family partnership" is a partnership whose partners are all members of the same family. A "family trust" is a trust, in which the beneficiaries are all members of the same family. The beneficiaries of a family trust may also include charitable entities. "Family" means the grantor and the grantor's spouse, parents, grandparents, sisters, brothers, children, stepchildren, grandchildren, and the spouses and lineal descendants of any of the above. A "charitable entity" means an entity which may receive deductible contributions under section 170 of the Internal revenue Code as defined in Section 12-6-40(A);
- (10) transferring realty in a statutory merger or consolidation from a constituent corporation to the continuing or new corporation;
- (11) transferring realty in a merger or consolidation from a constituent partnership to the continuing or new partnership; and
- (12) that constitute a corrective deed or a quitclaim deed used to confirm title already vested in the grantee, provided that no consideration of any kind is paid or is to be paid under the corrective or quitclaim deed;
- (13) transferring realty subject to a mortgage to the mortgagee whether by a deed in lieu of foreclosure executed by the mortgagor or deed executed pursuant to foreclosure proceedings;
- (14) transferring realty from an agent to the agent's principal in which the realty was purchased with funds of the principal, provided that a notarized document is also filed with the deed that establishes the fact that the agent and principal relationship existed at the time of the original purchase as well as for the purpose of purchasing the realty;
- (15) transferring title to facilities for transmitting electricity that is transferred, sold, or exchanged by electrical utilities, municipalities, electric cooperatives, or political subdivisions to a limited liability company which is subject to regulation under the Federal Power Act (16 U.S.C. Section 791(a)) and which is formed to operate or to take functional control of electric transmission assets as defined in the Federal Power Act.

Timothy J. Hanney





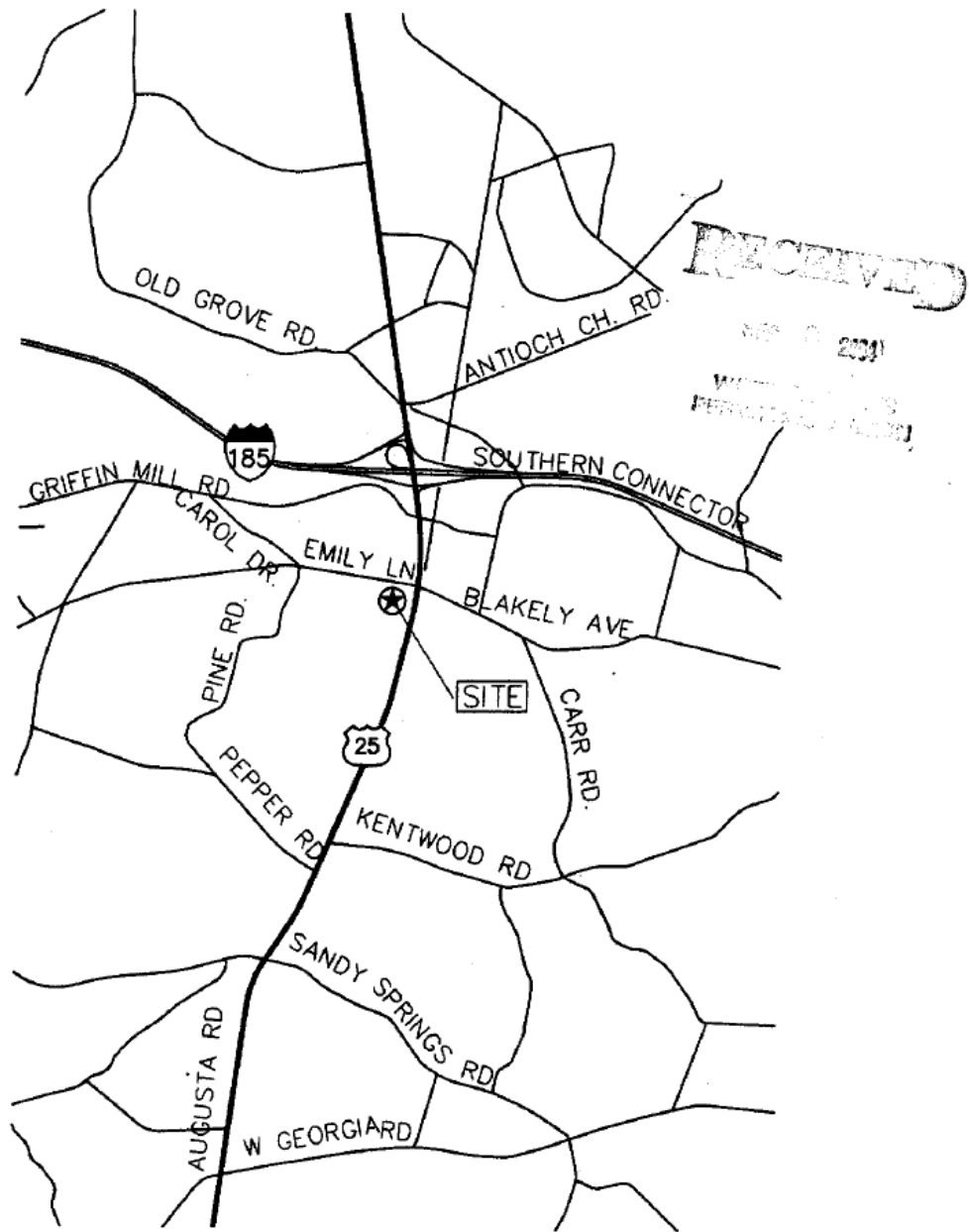
GPS CENTER FORCE MAIN

Scale 1" = 100'



CALIBER

ENGINEERING CONSULTANTS LLC
P.O. Box 2171 Greenville, SC 29616
750 E. Main St., Suite 100 Greenville, SC 29615
Phone (864) 244-8238 Fax (864) 244-8576



LOCATION MAP

SCALE: AS SHOWN

S. C. DEPT. OF HEALTH & ENVIRONMENTAL CONTROL
GPS Center
BUREAU OF WATER

WATER FACILITIES
APPROVED FOR CONSTRUCTION

(SUBJECT TO ANY PROVISIONS WHICH MAY
APPEAR IN THE CONSTRUCTION PERMIT.)

Condor Environmental, Inc.
508 Poinsett Highway
Greenville, SC 29609
Date: August 26, 2004

FINAL WRITTEN APPROVAL FOR OPERATION MUST
BE OBTAINED FROM THIS OFFICE AFTER COM-
PLETION OF CONSTRUCTION.

SECTION 02532

PERMIT NO. 30,302-WW DATE 9/20/2004 SEWAGE PUMPING STATION

PART 1. GENERAL
DIRECTOR, WATER FACILITIES PERMITTING DIVISION



1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes wetwell, sewage pumping station with submersible effluent sewage pumps.
- B. Related Sections include the following:
1. Division 2 Section "Sanitary Sewerage" for sewer piping to and from pumping stations.
 2. Division 16 Sections for electric power, wiring and cables, devices, grounding, and lightning protection.

1.3 PERFORMANCE REQUIREMENTS

- A. Pressure Rating of Sewage Pumps and Discharge Piping Components: At least equal to sewage pump discharge pressure, but not less than 125 psig.
- B. Pressure Rating of Other Piping Components: At least equal to system operating pressure.

1.4 SUBMITTALS

- A. Product Data: Include rated capacities; shipping, installed, and operating weights; furnished specialties; and accessories.
- B. Shop Drawings: Show fabrication and installation details for sewage pumping station. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
1. Wiring Diagrams: Power, signal, and control wiring.
- C. Product Certificates: For sewage pumps, signed by product manufacturer.

SEWAGE PUMPING STATION
02532 - 1

- D. Field quality-control test reports.
- E. Maintenance Data: For sewage pumping stations to include in maintenance manuals.
- F. Warranties: Special warranties specified in this Section.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer.
- B. Testing Agency Qualifications: Testing agency as defined by OSHA in 29CFR 1910.7.
- C. Product Options: Drawings indicate size, profiles, and dimensional requirements of sewage pumping stations and are based on the specific system indicated. Refer to Division 1 Section "Product Requirements."
- D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- E. HI Compliance: Comply with HI 1.1-1.5 for sewage pumps.
- F. NEMA Compliance: Comply with NEMA MG 1 for electric motors.
- G. UL Compliance: Comply with UL 778 for sewage pumps.

1.6 PROJECT CONDITIONS

- A. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Engineer not less than 30 days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Engineer's written permission.

1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of sewage pumping station that fail in materials or workmanship within specified warranty period.
- B. Warranty Period: Two years from date of Substantial Completion.

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Moonville, SC

Condor Environmental, Inc.
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Date: August 26, 2004

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where subparagraph titles below introduce lists, the following requirements apply for product selection:

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the manufacturers specified.
2. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified.

2.2 WET-WELL, SEWAGE PUMPING STATION WITH SUBMERSIBLE SOLIDS HANDLING PUMPS

- A. Description: Sewage pumping station includes all station components specified herein and noted on the drawings as required for a complete operating unit. Components include duplex submersible solids handling pumps and control panel, pump and control wiring mounting hardware (inside wet-well), electrical conduit and wiring, pre-cast concrete wet-well and valve vault, anchor bolts, manhole steps, access hatches, all internal piping and valves, pipe seals, vent pipes, etc.

1. Recommended Manufacturers:
 - a. Ebata
 - b. IIT Flygt
 - c. ABS Pumps

- B. Sewage Pumps: Two submersible solids handling sewage pumps, with stainless steel guide rail, quick-disconnect system, controls, and piping. Include hermetically sealed motor with moisture-sensing probe, mechanical seals, and waterproof power cable. Pump performance requirements are noted on the drawings.

2.3 CONTROL PANEL (Furnished by Pump Supplier)

- A. Control Sequence of Operation: Cycle each sewage pump on and off automatically to maintain wet-well sewage level. Provide automatic alternator, which changes sequence of sewage pumps at completion of each pumping cycle. Only one pump is to run at any one time. Include a manual transfer switch. The controls are to automatically alternate the lead pump at the end of each pump down cycle.
- B. Float-Switch System: Senses variations of sewage level in wet-well. Include high and low adjustments capable of operating on 6-inch minimum differential of liquid level.

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- C. Motor Controllers: Magnetic, full voltage, non-reversing. Include undervoltage release, thermal-overload heaters in each phase, manual reset buttons, and hand-automatic selector switches. Include circuit breakers to provide branch-circuit protection for each controller.
- D. 120-V accessory controls with 15-A, single-phase circuit breakers for each item.
- E. Connection for Portable Generator: Manual transfer switch with plug. Match generator electrical power requirements.
- F. Red Light.
- G. Hour meter for each pump.
- H. Control Panel: Enclosure with separate compartments and covers for controllers, circuit breakers, transformers, alternators, and single-phase controls. Include 20-A duplex receptacle in NEMA WD 1, Configuration 5-20R inside control panel.
 - 1. Mounting: Outside, on pedestal, at grade.
 - 2. Enclosure: NEMA 250, Type 4X.
- I. Install labels on panel face to identify switches and controls.
- J. Wiring: Tin-copper wiring.
- K. High-Water Audio Alarm: Horn for audio indication of station high-water level, energized by separate level-detecting device. Include alarm silencer switch and relay in station.
- L. Remote Alarm Circuit: Include contacts for connection to remote alarm panel.
- M. Provide autodialer with telephone connection for sending automatic trouble-alert calls to Owner in case of power failure, high water alarm, pump failure, etc. Coordinate equipment requirements with Owner.

2.4 MISCELLANEOUS MATERIALS

- A. Structural Steel: ASTM A 6/A 6M, W or HP shapes, or ASTM A 36/A 36M, plates or beams.
- B. Grout: ASTM C 1107, Grade B, non-shrink cement grout.
 - 1. Design Mix: 5000-psi, 28-day compressive strength.
- C. Concrete: Refer to Division 3 Section "Cast-in-Place Concrete."

2.5 PUMPING STATION FABRICATION

- A. Access Hatches: Waterproof and corrosion resistant, with lock. Include way to open cover from inside wet-well if hatch is locked.
- B. Air Vent: Duct fabricated from corrosion-resistant material, extended to above grade, outlet turned down, and with insect screen in outlet.
- C. Factory fabricates piping between unit components.
 - 1. Use ductile-iron pipe and fittings.
 - 2. Use fittings for changes in direction and branch connections.
 - 3. Flanged and union joints may be used instead of joints specified.
 - 4. Use dielectric fittings for connections between ferrous and copper-alloy piping.
- D. Piping Connections: Unless otherwise indicated, make the following piping connections
 - 1. Install unions, in piping NPS 2 (DN 50) and smaller, adjacent to each valve and at final connection to each piece of equipment having NPS 2 (DN 50) or smaller threaded pipe connection.
 - 2. Install flanges, in piping NPS 2-1/2 (DN 65) and larger, adjacent to flanged valves and at final connection to each piece of equipment having flanged pipe connection.
- E. Valves: Ferrous alloy.
 - 1. Sewage Pump Piping: Include gate valve on each pump inlet and gate and check valves on each discharge pipe.
- F. Wiring: Tin-coated copper.

2.6 SOURCE QUALITY CONTROL

- A. Test and inspect sewage pumps according to HI1.6, "Centrifugal Pump Tests." Include test recordings that substantiate correct performance of pumps at design head, capacity, suction lift, speed, and horsepower.
- B. Test accessories and controls through complete cycle. Include test recordings that substantiate correct performance.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance.
- B. Examine roughing-in of sewerage piping systems to verify actual locations of piping connections before sewage pumping station installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 EARTHWORK

- A. Excavation, trenching, and backfilling are specified in Division 2 Section "Earthwork."

3.3 IDENTIFICATION

- A. Install identifying labels permanently attached to equipment.
- B. Install operating instruction signs permanently attached to equipment or on pumping station wall near equipment.
- C. Arrange for installing green warning tape or detectable warning tape over outside edges of underground sewage pumping station. Tape materials and their installation are specified in Division 2 Section "Earthwork."

3.4 PUMPING STATION INSTALLATION

- A. Install sewage pumping station components where indicated, according to specific equipment and piping arrangement indicated.

3.5 CONNECTIONS

- A. Sanitary sewer piping installation requirements are specified in Division 2 Section "Sanitary Sewerage." Drawings indicate general arrangement of piping.
- B. Electrical power and wiring are specified in Division 16 Sections. Electrical Contractor shall provide and install local manual disconnect switch. Electrical Contractor shall install pump system pre-wired control panel (provided by pump supplier). Electrical Contractor shall provide and install conduit and wiring from disconnect switch to control panel. Electrical Contractor shall connect main power feeder to terminal blocks in control panel and shall pull and connect pump motor leads and wet-well level sensor leads to appropriate

terminal blocks in control panel. Electrical Contractor shall provide and install conduit and wiring.

3.6 PAINTING

- A. Prepare and paint ferrous piping in wet wells, structural-steel supports, and anchor devices with coal-tar epoxy-polyamide paint according to SSPC-Paint 16.
- B. Paint field-welded areas to match factory coating.

3.7 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified testing and inspecting agency to perform field tests and inspections and prepare test reports.
- B. Perform the following field quality-control tests and inspections and prepare test reports:
 - 1. After installing sewage pumping station and after electrical circuitry has been energized, test for compliance with requirements. Furnish water required for pump tests.
 - 2. Leak Test: After installation, charge systems and test for leaks. Repair leaks and retest until no leaks exist.
 - 3. Operational Test: After electrical circuitry has been energized, start units to confirm proper motor rotation and unit operation.
 - 4. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- C. Remove malfunctioning units, replace with new units, and retest as specified above.

3.8 STARTUP SERVICE

- A. Engage a factory-authorized service representative to perform startup service.
- B. Complete installation and startup checks according to manufacturer's written instructions.

3.9 CLEANING

- A. Clean dirt and debris from wet wells, pumps, and piping.
- B. After completing equipment installation, inspect unit components. Remove paint splatters and other spots, dirt, and debris. Repair damaged finishes to match original finishes.
- C. After completing system installation, including outlet fitting and devices, inspect exposed finish. Remove dirt and construction debris and repair damaged finishes.

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3.10 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain sewage pumping station.

END OF SECTION 02532

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SECTION 02530
SANITARY SEWERAGE



PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

RECEIVED

1.2 SUMMARY

- A. This Section includes sanitary sewerage outside the building.
- B. Related Sections include the following:
1. Division 3 Section "Cast-in-Place Concrete" for concrete structures.

SEP 2 2004

WATER FACILITIES
PERMITTING DIVISION

1.3 DEFINITIONS

- A. PVC: Polyvinyl chloride plastic.

1.4 PERFORMANCE REQUIREMENTS

- A. Gravity-Flow, Nonpressure-Piping Pressure Ratings: At least equal to system test pressure.
- B. Force-Main Pressure Ratings: At least equal to system operating pressure, but not less than 150 psig.

1.5 SUBMITTALS

- A. Shop Drawings: Include plans, elevations, details, and attachments for the following:
1. Precast concrete manholes, including frames and covers.
 2. Cast-in-place concrete manholes and other structures, including frames and covers.
- B. Design Mix Reports and Calculations: For each class of cast-in-place concrete.
- C. Field Test Reports: Indicate and interpret test results for compliance with performance requirements.

1.6 DELIVERY, STORAGE, AND HANDLING

SANITARY SEWERAGE
02530 - 1

- A. Do not store plastic structures, pipe, and fittings in direct sunlight.
- B. Protect pipe, pipe fittings, and seals from dirt and damage.
- C. Handle precast concrete manholes and other structures according to manufacturer's written rigging instructions.

1.7 PROJECT CONDITIONS

- A. Site Information: Perform site survey, research public utility records, and verify existing utility locations.
- B. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
 - 1. Notify Engineer not less than 30 days in advance of proposed utility interruptions.
 - 2. Do not proceed with utility interruptions without Engineer's written permission.

PART 2 - PRODUCTS

2.1 PIPING MATERIALS

- A. Refer to Part 3 "Piping Applications" Article for applications of pipe and fitting materials.

2.2 PIPES AND FITTINGS

- A. PVC Pressure Pipe: AWWA C900, Class 150, for gasketed joints.
 - 1. PVC Pressure Fittings: AWWA C907, for gasketed joints.
 - 2. Gaskets for PVC Piping: ASTM F 477, elastomeric seals.
- B. PVC Sewer Pipe and Fittings: According to the following:
 - 1. PVC Sewer Pipe and Fittings, NPS 15 (DN375) and Smaller: ASTM D 3034, SDR 35, for solvent-cemented or gasketed joints.
 - a. Gaskets: ASTM F 477, elastomeric seals.

2.3 SPECIAL PIPE COUPLINGS AND FITTINGS

- A. Pressure-Type Pipe Couplings: AWWA C219, iron-body sleeve assembly matching OD of pipes to be joined, with AWWA C111 rubber gaskets, bolts, and nuts. Include PE film, pipe encasement.

2.4 MANHOLES

- A. Normal-Traffic Precast Concrete Manholes: ASTM C 478 (ASTM C 478M), precast, reinforced concrete, of depth indicated, with provision for rubber gasketed joints.
1. Diameter: 48 inches minimum, unless otherwise indicated.
 2. Ballast: Increase thickness of precast concrete sections or add concrete to base section, as required to prevent flotation.
 3. Base Section: 6-inch minimum thickness for floor slab and 4-inch minimum thickness for walls and base riser section, and having separate base slab or base section with integral floor.
 4. Riser Sections: 4-inch minimum thickness, and lengths to provide depth indicated.
 5. Top Section: Eccentric-cone type, unless concentric-cone or flat-slab-top type is indicated. Top of cone of size that matches grade rings.
 6. Gaskets: ASTM C 443 (ASTM C 443M), rubber.
 7. Grade Rings: Include two or three reinforced-concrete rings, of 6- to 9-inch total thickness, that match 24-inch diameter frame and cover.
 8. Steps: Fiberglass, individual steps or ladder. Include width that allows worker to place both feet on one step and is designed to prevent lateral slippage off step. Cast or anchor into base, riser, and top section sidewalls with steps at 12- to 16-inch intervals. Omit steps for manholes less than 60 inches deep.
 9. Pipe Connectors: ASTM C 923 (ASTM C 923M), resilient, of size required, for each pipe connecting to base section.
- B. Heavy-Traffic Precast Concrete Manholes: ASTM C 913; designed according to ASTM C 890 for A-16, heavy-traffic, structural loading; of depth, shape, and dimensions indicated, with provision for rubber gasketed joints.
1. Ballast: Increase thickness of one or more precast concrete sections or add concrete to structure, as required to prevent flotation.
 2. Gaskets: Rubber.
 3. Grade Rings: Include two or three reinforced-concrete rings, of 6- to 9-inch total thickness, that match 24-inch diameter frame and cover.
 4. Steps: Fiberglass, individual steps or ladder. Include width that allows worker to place both feet on one step and is designed to prevent lateral slippage off step. Cast or anchor into base, riser, and top section sidewalls with steps at 12- to 16-inch intervals. Omit steps for manholes less than 60 inches deep.
 5. Pipe Connectors: ASTM C 923 (ASTM C 923M), resilient, of size required, for each pipe connecting to base section.
- C. Cast-in-Place Concrete Manholes: Construct of reinforced-concrete bottom, walls, and top; designed according to ASTM C 890 for A-16, heavy-traffic, structural loading; of depth, shape, dimensions, and appurtenances indicated.
1. Ballast: Increase thickness of concrete, as required to prevent flotation.
 2. Grade Rings: Include two or three reinforced-concrete rings, of 6- to 9-inch total thickness, that match 24-inch diameter frame and cover.
 3. Steps: Fiberglass, individual steps or ladder. Include width that allows worker to place both feet on one step and is designed to prevent lateral slippage off step. Cast or anchor into sidewalls with steps at 12- to 16-inch intervals. Omit steps for manholes less than 60 inches deep.

- D. Manhole Frames and Covers: ASTM A 536, Grade 60-40-18, ductile-iron castings designed for heavy-duty service. Include 24-inch ID by 7- to 9-inch riser with 4-inch minimum width flange, and 26-inch diameter cover. Include indented top design with lettering "SANITARY SEWER" cast into cover.

2.5 CONCRETE

- A. General: Cast-in-place concrete according to ACI 318, ACI 350R, and the following:
1. Cement: ASTM C 150, Type II.
 2. Fine Aggregate: ASTM C 33, sand.
 3. Coarse Aggregate: ASTM C 33, crushed gravel.
 4. Water: Potable.
- B. Portland Cement Design Mix: 4000 psi minimum, with 0.45 maximum water-cementitious materials ratio.
1. Reinforcement Fabric: ASTM A 185, steel, welded wire fabric, plain.
 2. Reinforcement Bars: ASTM A 615/A 615M, Grade 60 (Grade 400), deformed steel.
- C. Structure Channels and Benches: Factory or field formed from concrete. Portland cement design mix, 4000 psi minimum, with 0.45 maximum water-cementitious materials ratio. Include channels and benches in manholes.
1. Channels: Concrete invert, formed to same width as connected piping, with height of vertical sides to three-fourths of pipe diameter. Form curved channels with smooth, uniform radius and slope.
 - a. Invert Slope: 1 percent through manhole.
 2. Benches: Concrete, sloped to drain into channel.
 - a. Slope: 8 percent.
- D. Ballast and Pipe Supports: Portland cement design mix, 3000 psi minimum, with 0.58 maximum water-cementitious materials ratio.
1. Reinforcement Fabric: ASTM A 185, steel, welded wire fabric, plain.
 2. Reinforcement Bars: ASTM A 615/A 615M, Grade 60 (Grade 400), deformed steel.

2.6 PROTECTIVE COATINGS

- A. Description: One- or two-coat, coal-tar epoxy; 15-mil minimum thickness, unless otherwise indicated; factory or field applied to the following surfaces:
1. Concrete Manholes: On exterior surface.
 2. Manhole Frames and Covers: On surfaces that will be exposed to sewer gases.

2.7 CLEANOUTS

- A. PVC Cleanouts: PVC body with PVC threaded plug. Include PVC sewer pipe fitting and riser to cleanout of same material as sewer piping.

PART 3 - EXECUTION

3.1 EARTHWORK

- A. Excavating, trenching, and backfilling are specified in Division 2 Section "Earthwork."

3.2 IDENTIFICATION

- A. Materials and their installation are specified in Division 2 Section "Earthwork." Arrange for installing green warning tapes directly over piping and at outside edges of underground structures.
 - 1. Use warning tape or detectable warning tape over ferrous piping.
 - 2. Use detectable warning tape over nonferrous piping and over edges of underground structures.

3.3 PIPING APPLICATIONS

- A. General: Include watertight joints.
- B. Refer to Part 2 of this Section for detailed specifications for pipe and fitting products listed below. Use pipe, fittings, and joining methods according to applications indicated.
- C. Gravity-Flow Piping: Use the following:
 - 1. NPS 4 and NPS 6 (DN100 and DN150): PVC sewer pipe and fittings, solvent-cemented joints, or gaskets and gasketed joints.
 - 2. NPS 8 and NPS 10 (DN200 and DN250): PVC sewer pipe and fittings, solvent-cemented joints, or gaskets and gasketed joints.
- D. Force-Main Piping: Use the following:
 - 1. NPS 3 (DN80): Ductile-iron sewer pipe; standard- or compact-pattern, ductile-iron fittings; gaskets; and gasketed joints.
 - 2. NPS 4 to NPS 8 (DN100 to DN200): PVC pressure pipe, PVC pressure fittings, gaskets, and gasketed joints.

3.4 SPECIAL PIPE COUPLING AND FITTING APPLICATIONS

- A. Special Pipe Couplings: Use where required to join piping and no other appropriate method is specified. Do not use instead of specified joining methods.
 - 1. Use the following pipe couplings for nonpressure applications:

- a. Sleeve type to join piping, of same size, or with small difference in OD.
 - b. Increaser/reducer-pattern, sleeve type to join piping of different sizes.
 - c. Bushing type to join piping of different sizes where annular space between smaller piping's OD and larger piping's ID permits installation.
2. Use pressure-type pipe couplings for force-main joints. Include PE film, pipe encasement.
- B. Special Pipe Fittings: Use where indicated. Include PE film, pipe encasement.

3.5 INSTALLATION, GENERAL

- A. General Locations and Arrangements: Drawing plans and details indicate general location and arrangement of underground sanitary sewerage piping. Location and arrangement of piping layout take design considerations into account. Install piping as indicated, to extent practical.
- B. Install piping beginning at low point, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings according to manufacturer's written instructions for using lubricants, cements, and other installation requirements. Maintain swab or drag in line, and pull past each joint as it is completed.
- C. Use manholes for changes in direction, unless fittings are indicated. Use fittings for branch connections, unless direct tap into existing sewer is indicated.
- D. Use proper size increasers, reducers, and couplings where different sizes or materials of pipes and fittings are connected. Reducing size of piping in direction of flow is prohibited.
- E. Install gravity-flow piping and connect to building's sanitary drains, of sizes and in locations indicated. Terminate piping as indicated.
 1. Install piping pitched down in direction of flow, at minimum slope of 2 percent, unless otherwise indicated.
 2. Install piping with 36-inch minimum cover, unless otherwise indicated.
- F. Install PVC force-main piping according to AWWA M23.
- G. Install force-main piping between and connect to packaged sewage pump station outlet and termination point indicated.

3.6 PIPE JOINT CONSTRUCTION AND INSTALLATION

- A. General: Join and install pipe and fittings according to installations indicated.
- B. PVC Pressure Pipe and Fittings: Join and install according to AWWA M23.
- C. PVC Sewer Pipe and Fittings: As follows:
 1. Join pipe and gasketed fittings with gaskets according to ASTM D 2321.

2. Join profile sewer pipe fittings with gaskets according to ASTM D 2321 and manufacturer's written instructions.
3. Install according to ASTM D 2321.

- D. System Piping Joints: Make joints using system manufacturer's couplings, unless otherwise indicated.
- E. Join piping made of different materials or dimensions with couplings made for this application. Use couplings that are compatible with and that fit both systems' materials and dimensions.
- F. Install with top surfaces of components, except piping, flush with finished surface.

3.7 MANHOLE INSTALLATION

- A. General: Install manholes, complete with appurtenances and accessories indicated.
- B. Form continuous concrete channels and benches between inlets and outlet.
- C. Set tops of frames and covers flush with finished surface of manholes that occur in pavements. Set tops 3 inches above finished surface elsewhere, unless otherwise indicated.
- D. Install precast concrete manhole sections with gaskets according to ASTM C 891.
- E. Construct cast-in-place manholes as indicated.
- F. Install fiberglass manholes according to manufacturer's written instructions.

3.8 CONCRETE PLACEMENT

- A. Place cast-in-place concrete according to ACI 318 and ACI 350R.

3.9 CLEANOUT INSTALLATION

- A. Install cleanouts and riser extension from sewer pipe to cleanout at grade. Use cast-iron soil pipe fittings in sewer pipes at branches for cleanouts and cast-iron soil pipe for riser extensions to cleanouts. Install piping so cleanouts open in direction of flow in sewer pipe.
- B. Set cleanout frames and covers in earth in cast-in-place concrete block, 18 by 18 by 12 inches deep. Set with tops 1 inch above surrounding grade.
- C. Set cleanout frames and covers in concrete pavement with tops flush with pavement surface.

3.10 FIELD QUALITY CONTROL

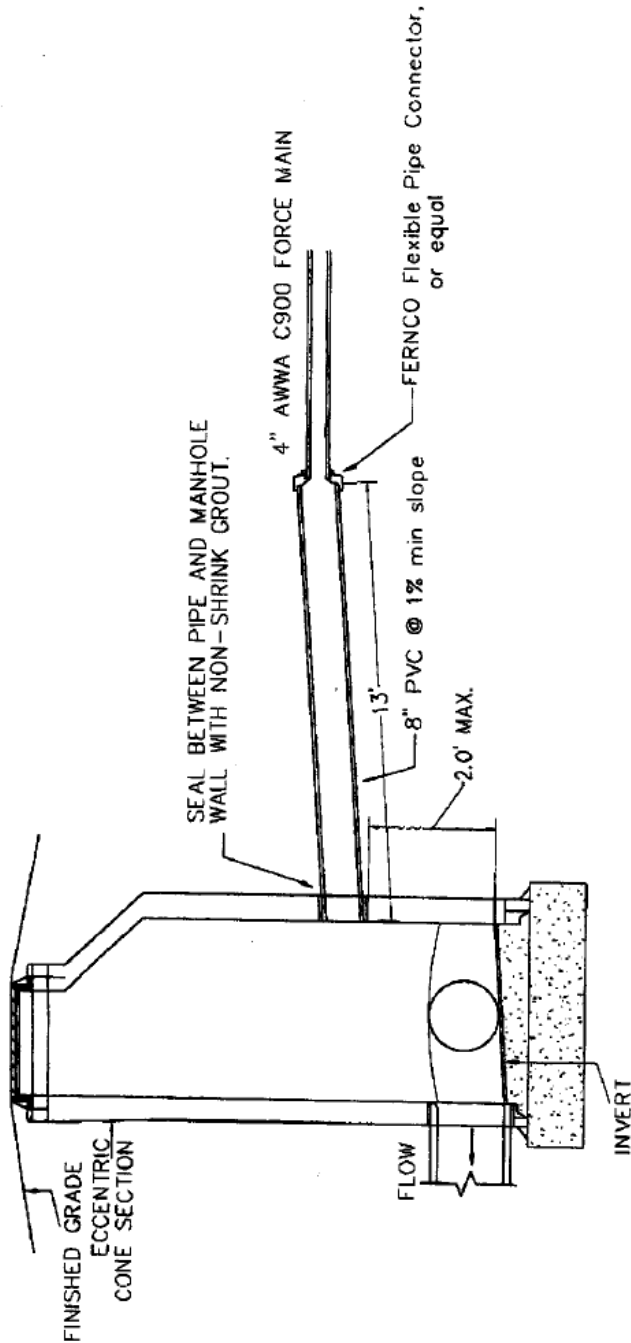
- A. Clear interior of piping and structures of dirt and superfluous material as work progresses. Maintain swab or drag in piping, and pull past each joint as it is completed.

1. Place plug in end of incomplete piping at end of day and when work stops.
 2. Flush piping between manholes and other structures to remove collected debris, if required by authorities having jurisdiction.
- B. Inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately 24 inches of backfill is in place, and again at completion of Project.
1. Submit separate reports for each system inspection.
 2. Defects requiring correction include the following:
 - a. Alignment: Less than full diameter of inside of pipe is visible between structures.
 - b. Deflection: Flexible piping with deflection that prevents passage of ball or cylinder of size not less than 92.5 percent of piping diameter.
 - c. Crushed, broken, cracked, or otherwise damaged piping.
 - d. Infiltration: Water leakage into piping.
 - e. Exfiltration: Water leakage from or around piping.
 3. Replace defective piping using new materials, and repeat inspections until defects are within allowances specified.
 4. Reinspect and repeat procedure until results are satisfactory.
- C. Test new piping systems, and parts of existing systems that have been altered, extended, or repaired, for leaks and defects.
1. Do not enclose, cover, or put into service before inspection and approval.
 2. Test completed piping systems according to authorities having jurisdiction.
 3. Schedule tests and inspections by authorities having jurisdiction with at least 24 hours' advance notice.
 4. Submit separate reports for each test.
 5. If authorities having jurisdiction do not have published procedures, perform tests as follows:
 - a. Sanitary Sewerage: Perform air test according to UNI-B-6.
 - 1) Option: Test concrete piping according to ASTM C 924 (ASTM C 924M).
 - b. Force Main: Perform hydrostatic test after thrust blocks, supports, and anchors have hardened. Test at pressure not less than one and one-half times maximum system operating pressure, but not less than 150 psig.
 - 1) Ductile-Iron Piping: Test according to AWWA C600, Section "Hydraulic Testing."
 - 2) PVC Piping: Test according to AWWA M23, "Testing and Maintenance" Chapter.
 6. Manholes: Perform hydraulic test according to ASTM C 969 (ASTM C 969M).
 7. Leaks and loss in test pressure constitute defects that must be repaired.
 8. Replace leaking piping using new materials, and repeat testing until leakage is within allowances specified.

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Date: August 26, 2004

END OF SECTION



EXISTING MSSD MANHOLE CONNECTION

NO SCALE



**GPS CENTER
MANHOLE SECTION**

Wastewater Construction Permit
Bureau of Water



Permission is hereby granted to: Condor Environmental Inc
508 Poinsett Hwy
Greenville, SC 29609

for the construction of a sanitary sewer system in accordance with the construction plans, specifications, engineering report and the Construction Permit Application signed by Gary A. Johnson, Registered Professional Engineer, S.C. Registration Number: 12292.

Project Name: GPS CENTER

County: Greenville

Project Description: Install a 117-GPM pump station with 2500 LF of 4" force main to serve a commercial space and a restaurant.

The wastewater will be discharged to the WCRSA/GROVE CREEK treatment facility, (NPDES Permit SC0024317) at a design flow rate of 9120 gallons per day.

Special Conditions:

1. This pump station is permitted to serve only one (1) parcel of deeded property. Any additional properties proposing to tie onto this pump station must first receive approval from S.C. DHEC.

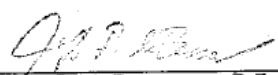
In accepting this permit, the owner agrees to the admission of properly authorized persons at all reasonable hours for the purpose of sampling and inspection.

This is a permit for construction only and does not constitute State Department of Health and Environmental Control approval, temporary or otherwise, to place the system in operation. An Approval to Place in Operation is required and can be obtained following the completion of construction by contacting the EQC Appalachia II District Office at (864) 241-1090. Additional permits may be required prior to construction (e.g., stormwater).

Permit Number: 30,302-WW

Date of Issue: September 20, 2004

Expiration Date: Construction must begin prior to September 21, 2006 and be completed prior to September 20, 2007, or this permit will expire.


Jeffrey P. deBessonnet, P.E., Director
Water Facilities Permitting Division

JA

WW-1240-02



Construction Permit Application Water/Wastewater Facilities

BUREAU OF WATER

DRP SUBMITTAL: No ☐ Yes ☐

SELECT ONE ☐ Water Facilities ☒ Wastewater Facilities ☐ Water & Wastewater Facilities

I. Project Name: GPS Center County: Greenville

II. Project Location (street names, etc.): Approx 300 feet south of Emily Ln. and US HWY 25. Located on the Western side of US HWY 25.

III. Project Description(s): Water System:

Wastewater System: Pump station with 2500 ft of 4" Force Main paralleling US Hwy 25. and connecting to Metropolitan Sewer Sub-District Manhole along Piedmont Golf Course Rd.

Project Type (A-Z): Water: Wastewater: C (See instructions for the appropriate project code)

IV. Initial Owner: [Time of Application] Name/Organization: Condor Environmental Inc.

Address: 508 Poinsett Hwy City: Greenville State: SC Zip: 29609 Phone #: (864) 242-6644

V. Final Owner: [After Construction] Name/Organization: Condor Environmental Inc.

Address: 508 Poinsett Hwy City: Greenville State: SC Zip: 29609 Phone #: (864) 242-6644

VI. Entity Responsible for Final Operation & Maintenance of System:

Water System: Name: Address:
City: State: Zip: Phone #: () Fax #: ()

Wastewater System: Name: Condor Environmental Inc. Address: 508 Poinsett Hwy
City: Greenville State: SC Zip: 29609 Phone #: (864) 242-6644 Fax #: (864) 370-1551

VII. Engineering Firm: Name: Caliber Engineering Address: 750 Executive Center Dr. Suite 100

City: Greenville State: SC Zip: 29606 Phone #: (864) 244-7238 Fax #: ()

VIII. Is this project: A) Part of a phased project? No ☒ Yes ☐ If Yes, Phase of

B) A revision to a previously permitted project? No ☒ Yes ☐ If Yes, Permit #

Date Approved: Project name (if different):

C) Submitted based on a Schedule of Compliance or Order issued by DHEC? No ☒ Yes ☐ Order #

D) Anticipating funding by the State Revolving Fund (SRF)? No ☒ Yes ☐

E) Crossing a water body? (e.g., river, creek) No ☒ Yes ☐ If Yes, Name of water body

IX. Are Standard Specifications approved by DHEC being used on this project? No ☒ Yes ☐ If Yes:

Water: Date Approved: Approved for whom:

Wastewater: Date Approved: Approved for whom:

X. Wastewater Systems: A) Type: Domestic ☒ Process (Industrial) ☐ Combined (Domestic & Process) ☐

B) Total average design flow of the project not to exceed 9,120 GPD

C) Sewers or Pretreatment 1. Name of facility (e.g., POTW) treating the wastewater: GRAVE CREEK WWTP

2. NPDES/ND Number of facility in Item #1: SC 0024317

Treatment Systems 3. Date Preliminary Engineering Report (PER) approved:

4. NPDES/ND application submitted? No ☐ Yes ☐ If Yes, Date

Disposal Sites 5. Effluent Disposal Site (Description):

6. Sludge Disposal Site (Description):

XI. Water Systems: Project located within city limits? No ☐ Yes ☐

Public water system providing water (Name & System ID No.): No.:

New water system (including master meter)? No ☐ Yes ☐ If Yes, System name:

RECEIVED

SEP 8 2004

WATER FACILITIES
PERMITTING DIVISION

XII. Type of Submittal: Complete Section A (Standard) or Section B (Delegated Review Program - DRP).

A) Standard Submittal *must* include the following, where applicable:

- ☐ 1. A transmittal letter outlining the submittal package.
- ☐ 2. The **original** construction permit application, properly completed, with three (3) copies.
- ☐ 3. Three (3) sets of signed and sealed plans and specifications. Specifications may be omitted if approved standard specifications are on file with DHEC.
- ☐ 4. One (1) additional overall plan sheet showing the proposed and existing (only in the area of proposed construction) water and wastewater lines (highlighted for identification) and their sizes.
- ☐ 5. Three (3) sets of the appropriate design calculations. **WASTEWATER:** Design flow (based on R.61-67, Appendix A), pump station calc's. and pump curve. **WATER:** Recent flow test from a location near the tie-on site, design calc's. indicating pressure maintained in the distribution system during max. instantaneous demand, fire flow and flushing velocities achieved. Number/types of service connections, well record form, pumping test results, etc.
- ☐ 6. Three (3) copies of a detailed 8½" x 11" location map, separate from the plans.
- ☐ 7. Three (3) copies of construction easements unless the project owner has the right of eminent domain.
- ☐ 8. A letter(s) from the entity supplying water and/or providing wastewater treatment stating their willingness and ability to serve the project, including pretreatment permits, if applicable. The letter should include the specific flow and, when applicable, the specific number of lots being served.
- ☐ 9. A letter(s) from the entity agreeing to be responsible for the O&M of the water and/or wastewater system.
- ☐ 10. Application fee enclosed \$ 350. (Refer to Instructions).
- ☐ 11. **WATER SYSTEMS:** a) A letter from the local government which has potable water planning authority over the area, if applicable, in which the project is located, stating project consistency with water supply service plan for area.
b) For wells, four (4) copies of a wellhead protection area inventory.
c) For new wells, a viability demonstration is required in accordance with Regulation 61-58.1.B.(4).

Note: Other approvals may include 208 and OCRM certification, and navigable waterway permitting.

B) DRP submittal (treatment plants are not covered) *must* include the following, where applicable:

- ☐ 1. A transmittal letter, signed by the professional engineer representing the DRP entity, noting this is a DRP submittal. The letter should state that the project has been reviewed and complies with R.61-58 and/or R.61-67.
- ☐ 2. The **original** construction permit application, properly completed, with two (2) copies.
- ☐ 3. Two (2) sets of the signed and sealed plans.
- ☐ 4. One (1) additional plan sheet with water and wastewater lines highlighted, as required under Sec. XII.A.4. above.
- ☐ 5. Two (2) sets of the appropriate design calculations. **WASTEWATER:** Same information as required under Section XII.A.5. above. **WATER:** Same information as required under Section XII.A.5. above.
- ☐ 6. Two (2) copies of a detailed 8½" x 11" location map, separate from the plans.
- ☐ 7. Two (2) copies of construction easements, unless the project owner has the right of eminent domain.
- ☐ 8. DHEC's Ocean and Coastal Resource Management certification (for projects in applicable counties).
- ☐ 9. DHEC's Water Quality permit or conditions for placement in navigable waters, and other Agency approvals.
- ☐ 10. **WASTEWATER SYSTEMS:** a) A letter of acceptance from the entity providing the treatment of the wastewater that includes the specific flow and, when applicable, the specific number of lots being accepted.
b) A letter from the organization agreeing to be responsible for the O&M of the sewer system.
c) The 208 Plan certification from the appropriate Council of Governments (designated 208 areas), or from DHEC on the non-designated 208 areas.
- ☐ 11. **WATER SYSTEMS:** A letter from the local government which has potable water planning authority over the area, if applicable, in which the project is located, stating project consistency with water supply service plan for area.
- ☐ 12. Fee of \$75 for water and \$75 for sewer (\$150 if combined).

Note: The DRP entity should ensure that a copy of the final approved plans are returned to the design engineer.

XIII. Construction plans, material and construction specifications, the engineering report including supporting design data and calculations are herewith submitted and made a part of this application. I have placed my signature and seal on the engineering documents submitted, signifying that I accept responsibility for the design of this system, and that I have submitted a complete administrative package.

Engineer's Name (Printed): Gary Alan Johnson

Signature: [Signature]

S.C. Registration Number: SC PE 12292

Registered Professional Engineer

XIV. Prior to final approval, I will submit a statement certifying that construction is complete and in accordance with the approved plans and specifications, to the best of my knowledge, information and belief. This certification will be based upon periodic observations of construction and a final inspection for design compliance by me or a representative of this office who is under my supervision.

Engineer's Name (Printed): Gary Alan Johnson

Signature: [Signature]

S.C. Registration Number: SC PE 12292

Registered Professional Engineer

XV. I hereby make application for a permit to construct the project as described above. I have read this application and agree to the requirements and conditions and agree to the admission of properly authorized persons at all reasonable hours for the purpose of sampling and inspection.

Owner's Name (Printed): Candler Environmental, LLC

Signature: [Signature]

Owner's Title: President

Date: 8/22/04



P.O. BOX 27171 • GREENVILLE, SC 29616-7171 • 864.244.9238 • FAX 864.244.9576

GPS Center Pump Station & Force Main
(DHEC Wastewater Construction Permit #30,302-WW)

March 7, 2005

Mr. Guy Tumblin, P.E.
Appalachian II District Environmental Quality Control
South Carolina Department of Health and Environmental Control
301 University Ridge, Suite 5800
Greenville, South Carolina 29601

Subject: Request for Final Inspection & PTO

Dear Mr. Tumblin:

Construction and testing of the domestic wastewater pump station for Condor Environmental O&M LLC located at the GPS Retail Center on Augusta Road near Emily Lane in Moonville, SC has been completed in accordance with the approved plans and specifications. This project was permitted by DHEC's Bureau of Water under Permit #30,302-WW, issued September 20, 2004 (copy enclosed). Also enclosed is a copy of WCRSA's flow-acceptance letter dated Sept. 1, 2004. We request your final inspection and issuance of a Permit-to-Operate. Please call me when you schedule your inspection so Sam Weaver and I can meet you, if possible. Please call me if you have any questions or need any additional information.

Sincerely,
ALAN JOHNSON, P.E., ENGINEERING CONSULTANTS LLC

A handwritten signature in black ink, appearing to read 'A. Johnson'.

Alan Johnson, P.E.

Enclosures

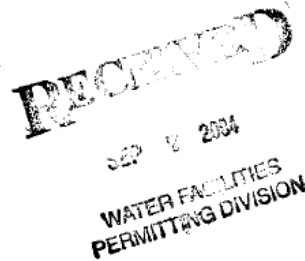
cc: Sam Weaver, Condor Environmental O&M LLC



Administrative Office
561 Mauldin Road • Greenville, SC 29607
864/299-4000 • Fax 864/277-5852

Operations/Laboratory/Pretreatment
660 Mauldin Road • Greenville, SC 29607
864/299-4040 • Fax 864/299-4059

September 1, 2004



Mr. Alan Johnson, P.E.
Caliber Engineering Consultants, LLC
P.O. Box 27171
Greenville, South Carolina 29616

RE: GSP Center
Augusta Road & Emily Lane in Greenville County, South Carolina

Dear Mr. Johnson:

Western Carolina Regional Sewer Authority (WCRSA) has sufficient capacity for the 9,120 gallons per day total flow of domestic wastewater from the office and restaurant in the GSP Center. This flow will be treated at the Grove Creek Wastewater Treatment Plant, NPDES Permit No. SC0024317.

All sewer connections directly or indirectly served by WCRSA are subject to a "New Account Fee." No tie-ins will be allowed until a connection permit is issued by WCRSA. Please notify WCRSA if there are any changes in total daily flows.

Sincerely,

J. Brian Bishop
J. Brian Bishop, P.E.
Engineering Supervisor

cc: SCDHEC – Greenville
SCDHEC – Columbia
Metropolitan Sewer Subdistrict

I:\linda\acceptance letters\gsp center.doc

Celebrating 75 Years of Environmental Stewardship

PUMP STATION AND FORCE MAIN AGREEMENT

THIS PUMP STATION AND FORCE MAIN AGREEMENT is made and entered into on this 27th day of April, 2005, by and among FIVE FORKS PROPERTIES, LLC, a South Carolina Limited Liability Company ("FFP"); CONDOR ENVIRONMENTAL O&M, LLC, a South Carolina Limited Liability Company ("Condor"); and METROPOLITAN SEWER SUB DISTRICT ("Metropolitan"), a South Carolina Special Purpose District.

WITNESSETH:

WHEREAS, FFP is currently developing a residential subdivision, named the Highgrove Subdivision ("Highgrove Subdivision") in Greenville County, South Carolina, on the property which is described on Exhibit A, hereto attached and made a part hereof; and

WHEREAS, FFP currently owns the property and a property owners association (the "Association") will become the governing association for the Highgrove Subdivision; and

WHEREAS, the development plan for the Highgrove Subdivision provides for a total of 187 homes which will be served by the Pump Station and Force Main as hereinafter defined; and

WHEREAS, gravity sanitary sewer service will be provided to the Highgrove Subdivision by Metropolitan; and

WHEREAS, due to the topography of the land on which Highgrove Subdivision is being developed, a Pump Station and Force Main will be required to be installed within the subdivision, and under its current policies Metropolitan is unwilling to assume the ownership or maintenance responsibility for the Pump Station and Force Main; and

WHEREAS, Condor has agreed to assume the ownership and maintenance responsibility for the Pump Station and Force Main in accordance with the terms and provisions of this Agreement, and Metropolitan has agreed to initiate sanitary sewer service to Highgrove Subdivision in the event that the FFP and Condor enter into this Agreement;

NOW, THEREFORE, for and in consideration of the foregoing premises, and of the mutual covenants of the parties herein set forth, the parties hereto hereby agree as follows:

1. COMPLETION AND CONVEYANCE OF PUMP STATION AND FORCE MAIN. FFP agrees to design and complete the construction of the Pump Station and Force Main in accordance with the plans and specifications for the Pump Station and Force Main prepared by Freeland & Associates, Inc. (the "Engineer") that meet the requirements of Metropolitan and Condor and to cause the Pump Station and Force Main, and which shall include a standby electric generator and spare pump which becomes part of the Pump Station, to be approved to operate by the Department of Health and Environmental Control of the State of South Carolina ("DHEC").

FFP agrees that at such time as the Pump Station and Force Main are approved by DHEC, FFP shall transfer and convey the Pump Station and real property in fee simple and Force Main and along with all necessary and appropriate easements to Condor. At the time of said transfer and conveyance, FFP shall also assign to Condor all warranties which shall have been made to FFP by the Contractor and the Engineer in regard to the Pump Station and Force Main along with a copy of the as-built plans and specifications for the Pump Station and Force Main.

Condor agrees that during construction, and prior to the transfer and conveyance of the Pump Station and Force Main to it, that it will conduct such inspections of the Pump Station and Force Main as Condor shall deem necessary to satisfy itself as to the condition of the Pump Station and Force Main. FFP agrees to pay Condor's fees and costs of such inspections. FFP additionally agrees to pay Condor's attorney fees associated with this Agreement, construction of the Pump Station and Force Main, and transfer of the Pump Station and Force Main to Condor.

2. OPERATION OF PUMP STATION AND FORCE MAIN. Condor agrees to accept the transfer and conveyance to it of the Pump Station and Force Main and thereafter to operate, repair, maintain and replace the same in accordance with the terms and provisions of this agreement.

Condor shall operate and maintain the Pump Station and Force Main so that all houses served by the Pump Station and Force Main shall receive continuous sanitary sewer service without interruption. The repair, maintenance and replacement responsibilities of Condor under this Agreement shall include the replacement of all parts of the Pump Station and Force Main which shall become worn out or obsolete and the making of all capital repairs and replacements as shall be necessary in order for Condor to carry out its obligations under this Agreement without interruption.

It is anticipated that the wastewater collected from the Premises and delivered to the Pump Station and Force Mains consists only of wastewater of typical residential/commercial strength waste. FFP and the Association, when it takes over responsibilities under this Agreement from FFP, shall be responsible for and shall ensure that the sewage collected from the Highgrove Subdivision and delivered to the Condor Pump Station consist only of wastewater of typical residential strength waste, which shall not exceed 300 ppm BOD or TSS, and does not contain excessive grease, sediment, rags or other deleterious substances. Condor may require FFP or the Association, and FFP and the Association agree, to take necessary steps to prevent sewage from the Highgrove Subdivision that the contaminant level or waste concentration of this sewage exceeds the level described herein. Additionally, FFP and the Association agree and are responsible for payment to Condor, in addition to the Monthly Fee, for any response actions Condor takes to remedy and repair the damage caused by such excessive contaminants or other deleterious substances. If Condor determines that there is excessive infiltration and inflow ("I and I") into the Pump Station from the collection system in the Highgrove Subdivision, then Condor may require, and FFP or the Association shall take, such remedial action as is necessary to correct the excessive I and I.

If that is not the case, Condor may take necessary and appropriate action, in accordance with reasonable wastewater industry standards and charge separately and in addition to the normal Monthly Fee for such action.

Condor shall operate and maintain the Pump Station and Force Main so that the same will at all times comply with and fulfill at all governmental laws, rules and regulations that shall be applicable to the operation and maintenance of the Pump Station and Force Main. Without limiting the generality of the forgoing, Condor shall operate and maintain the Pump Station and Force Main in accordance with all rules and regulations which shall be promulgated at any time, and from time to time, by Metropolitan for privately owned and maintained sanitary sewer Pump Stations and Force Main which are part of the sewage treatment system operated by Metropolitan. In addition, Condor shall comply with all policies and requirements of South Carolina Public Service Commission or other appropriate governmental agency which may be applicable to the Pump Station and Force Main costs and expenses which it shall incur in connection with the carrying out of its duties and responsibilities under this Agreement.

3. PAYMENT BY FFP AND THE ASSOCIATION. FFP, or the Association at which time it assumes such obligation from FFP, hereby agrees that in consideration for the performance by Condor of its duties and obligations under this Agreement, FFP or the Association shall pay to Condor, upon start up of the Pump Station and Force Main and thereafter, the amount of Two Thousand Four Hundred Dollars (\$2,400.00) (the "Monthly Fee") per month.

Prior to the start up of the Pump Station and Force Main, FFP or the Association shall deliver to Condor an irrevocable letter of credit from a bank located in Greenville, Pickens or Spartanburg County, South Carolina in the amount of Thirty Thousand Dollars (\$30,000.00) to guarantee the payment by FFP or The Association of the Monthly Fee to Condor in accordance with the terms hereinafter. The letter of credit is to have a term of twenty-four (24) months or longer. The Association agrees to renew the letter of credit or to maintain a Thirty Thousand Dollars (\$30,000.00) cash escrow to be held by Condor to guarantee the payment of the Monthly Fee.

FFP or the Association, at which time it assumes such obligation from FFP, shall pay the Monthly Fee to Condor on or before the tenth day of each calendar month by means of a check made payable to Condor and mailed or otherwise delivered to the address herein below provided. In the event that FFP or the Association shall at any time fail to pay to Condor the Monthly Fee within thirty (30) days of the due date, Condor shall have the right to draw the Monthly Fee plus ten percent (10%) of the Monthly Fee as a delinquency charge from the Letter of Credit or from the escrow amount upon presentation of such unpaid invoice and an accompanying notarized statement that payment plus penalty are due.

Upon no less than ninety (90) days prior notice to FFP or the Association, Condor shall have the right to increase the amount of the Monthly Fee at any time, in order to compensate Condor for any reasonable increase in the cost and expense to Condor of performing its responsibilities under this Agreement, and further provided that the increase in the Monthly Fee shall not be increased by more than ten (10%) percent in any twelve month period.

Notwithstanding the foregoing, Condor shall not increase the amount of the Monthly Fee because of any fine or penalty assessed by any regulatory agency to Condor for any act or omission by Condor for repairs or replacements to the Premises, including the Pump Station and Force Main, that are the result of the negligent or intentional acts or omissions of Condor.

4. APPROVAL BY METROPOLITAN. Metropolitan hereby consents to the terms of this Agreement and agrees that at such time as the Pump Station and Force Main shall be transferred and conveyed by FFP or the Association to Condor, Metropolitan will accept the discharge from the Pump Station and Force Main owned and operated by Condor.

5. RESERVE ACCOUNT BY THE ASSOCIATION. At the execution of this Agreement FFP shall pay to Condor the one half of the reserve account fee in the amount of Twenty Eight Thousand Fifty Dollars (\$28,050.00). At the time of transfer and conveyance of the Pump Station and Force Main by FFP and just prior to start up of the Pump Station and Force Main, FFP shall pay to Condor the remainder of the reserve account fee in the amount of Twenty Eight Thousand Fifty Dollars (\$28,050.00). The parties hereto agree that the establishment of such reserve account is a one-time obligation which may be drawn on by Condor for emergency response and for replacement of the Pump Station or Force Main, or any portion thereof, if damaged by accident, vandalism or other disaster. Any interest earned on the reserve account shall be the property of Condor. Further, all or any portion of said reserve account may be used to pay for the costs and expenses of insurance, preventative maintenance or emergency repairs.

If the Pump Station and Force Main is replaced by gravity sewer, the ownership and operation of the Pump Station and Force Main is transferred to and assumed by a public entity having jurisdiction and authority therefore, or after five (5) years, the reserve account shall terminate. The funds remaining therein including any interest shall be paid and distributed according to the following schedule:

<u>PERIOD</u>	<u>ALLOCATION</u>
Effective date of this Agreement to 1 st Anniversary	100 % to FFP
1 st Anniversary of this Agreement to 3 rd Anniversary	70% to FFP 30 % to Condor
3 rd Anniversary of this Agreement to 5 th Anniversary	30% to FFP 70% to Condor
5 th Anniversary of this Agreement and thereafter	100% to Condor

6. NOTICES. Any notices which may be permitted or required under the terms and provisions of this Agreement shall be in writing and shall be deemed to have been duly given, except as otherwise provided in this Agreement, as of the date and time are received by the parties to whom the notices are sent. Such notices shall be deemed received upon hand delivery

or by Federal Express or equivalent courier and evidenced by a notation on the records of that courier that such notices were delivered to the parties at the following addresses or at such other address as a party shall notify the other parties in writing:

- (a) Five Forks Properties, LLC
1909 East Main Street
Easley, SC 29640
- (b) Condor Environmental O&M, LLC
P.O. Box 10005
Greenville, SC 29603-0005
- (c) Metropolitan Sewer Sub-District
705 Old Augusta Road
Greenville, SC 29605

7. TERM. The term of this Agreement shall commence on the date on which this Agreement shall be executed by all parties hereto and shall continue in full force and effect until such time, if any, as Condor shall have transferred and conveyed the Pump Station and Force Main to a governmental subdivision of the State of South Carolina which shall have all power and authority necessary to operate and maintain the Pump Station and Force Main and shall have agreed with Highgrove and The Association to do so.

In addition to the above, this Agreement may terminate in the following ways:

- (a) This Agreement will terminate if a public entity agrees to assume the operation of the premises;
- (b) If the Pump Station and Force Main is replaced by a gravity sewer line, the Agreement shall terminate effective upon the date that the gravity sewer line is placed into operation;
- (c) Condor may terminate the Agreement upon ninety (90) days prior written notice to the Association, provided that prior to termination Condor has identified for the Association and the Association has approved a successor entity that is properly qualified and licensed to enter into an Agreement substantially similar to this Agreement or into an Agreement reasonable satisfactory to the Association to operate the Pump Station and Force Main. Condor shall at all times be responsible for the continued performance of its duties and obligations under this Agreement until the successor entity has assumed the obligations under this Agreement.
- (d) The Association may terminate the Agreement upon thirty (30) days prior written notice to Condor, if (i) any performance standard included within this Agreement is not met for a cumulative period of fourteen (14) days or more during any rolling twelve (12) month period; or (ii) a sewage back up in any residence, caused by the Pump Station or Force Main, occurs four (4) or more times during any twelve (12)

month period; or (iv) a sewage overflow out of the Pump Station or Force Main, occurs four (4) or more times during any rolling twelve (12) month period; or for the convenience of The Association. In the event of any default of Condor of any of these conditions, Condor agrees to promptly deed the Pump Station and Force Main premises back to The Association without consideration.

8. METROPOLITAN APPROVAL. This Agreement may be assigned with the prior written consent of the parties. Notwithstanding the foregoing, however, any operation of the Pump Station and Force Main by any person, party or entity other than Condor, as herein provided, shall be subject to the approval of Metropolitan. Upon the approval of said transfer and conveyance to a third party operator by such a governmental authority and the completion of said transfer, Condor shall be automatically released from all further duties or obligations under the terms of this Agreement.

9. If for any reason Condor, or its assigns, does not fulfill their obligation to maintain the pump station and force main, then the Association will assume the obligations of Condor as set forth herein. Further, the Association, Condor, its successors and assigns shall indemnify and hold harmless Metropolitan Sewer Sub-District for any and all damage of any nature which may occur from this Agreement.

IN WITNESS WHEREOF, the parties hereto each of who being duly authorized have set their hands and seals on the day and year first above written.

FIVE FORKS PROPERTIES, LLC

By: [Signature] member

DATED: 7/20/05

CONDOR ENVIRONMENTAL O&M, LLC

By: [Signature]

DATED: 4/26/05

METROPOLITAN SEWER SUB-DISTRICT

By: [Signature]

DATED: 4.27.05

STATE OF SOUTH CAROLINA

COUNTY OF GREENVILLE

PROBATE

BEFORE ME personally appeared the undersigned and made oath that (s)he saw the within named Grantor sign, seal, and as his/her/their act and deed, deliver the within written Deed, and that (s)he with the other witness subscribed above witnessed the execution thereof.

SWORN to before me, this 15th Day
of May, 2006.

Karen Sexton

Yvonne B. Hays
Notary Public for South Carolina

My Commission Expires: 12.3.2012



GREENVILLE EQC OFFICE
301 UNIVERSITY RIDGE, SUITE 5800
GREENVILLE, SC 29601-4703
Phn: 864-241-1090

Serving Counties: Greenville and Pickens

Wastewater System Construction

APPROVAL TO PLACE INTO OPERATION

ISSUED TO: FIVE FORKS PROPERTIES LLC
1909 E MAIN ST
EASLEY SC 29640

for the operation of a wastewater treatment/collection system permitted under construction permit 31390-WW, dated July 21, 2005, as described below

PROJECT NAME: HIGHGROVE

COUNTY: Greenville

PROJECT DESCRIPTION: Approximately 5268 LF of 8" gravity sewer line, a pump station, 2816 LF of 4" force main, and thirty one (31) manholes to serve 106 residential lots (1-61, 79-105, 170-187) and the amenity area

PERMITTED FLOW: 42400 gallons per day

WWTP: REWA/GILDER CK WWTP (SC0040525)

SPECIAL NOTE:

1. This *Approval to Place into Operation* was issued to combine all previously issued *Partial Approvals to Place into Operation*.

This approval is based on the Engineer's letter of certification signed by D. Kevin Tumblin, P.E., South Carolina Registration No. 23570.

Eric K. Kim, Regional Engineer
Environmental Quality Control
Greenville EQC Office

Date Issued: January 26, 2012

cc: Bureau of Water Permitting File
Local Environmental Health Office
Local Codes
Stuart Farmer, Freeland and Associates
James R. Freeland, P.E., Freeland and Associates

2012022210 DEED
6 PGS
Book DE 2402 Page 5087-5092
March 20, 2012 03:44 56 PM Cons. \$10 00
Rec \$10 00 Cnty Tax EXEMPT State Tax EXEMPT

FILED IN GREENVILLE COUNTY, SC

Prepared by:

Daniel Trammel, Attorney at Law

Grantee's Address: 211 Randall Street, Greer, SC 29651

STATE OF SOUTH CAROLINA)
) TITLE TO REAL ESTATE
COUNTY OF GREENVILLE) (NO TITLE EXAMINATION)

KNOW ALL MEN BY THESE PRESENTS, that **FIVE FORKS PROPERTIES, LLC**, in consideration of the sum of Ten and No/100 (\$10.00) Dollars, the receipt and sufficiency of which is hereby acknowledged, has granted, bargained, sold, and released, and by these presents does grant, bargain, sell, and release unto **CONDOR ENVIRONMENTAL, LLC**, its successors and assigns, forever:

All that certain piece, parcel or lot of land situate, lying and being in the State of South Carolina, County of Greenville known and designated as the physical location of the Lift Station and appurtenant structures and being shown according to a plat entitled "Highgrove Phase II" for Five Forks Properties, LLC prepared by Freeland & Associates, Inc. dated April 24, 2007, recorded in Plat Book 1037 at Page 9, and having according to said plat, such metes and bounds as shall appear thereon.

Also those force main lines, valves, adjuncts and appurtenances and easements associated, therewith, including but not limited to those installed and located in, under or along the property of Grantor as shown on a plat entitled "Highgrove Phase II" for Five Forks Properties, LLC prepared by Freeland & Associates, Inc. dated April 24, 2007, recorded in Plat Book 1037 at Page 9, and also being more particularly shown and described on an as-built drawing of said lines, prepared by Freeland & Associates, Inc. dated May 16, 2006 on file with Grantee which are by reference made part of this description.

ALSO: An easement for ingress, egress, maintenance and operation of a sewer force main line twelve and one-half feet in width on each side of the sewer force main line across the premises shown on a plat entitled "Highgrove Phase II" for Five Forks Properties, LLC prepared by Freeland & Associates, Inc. dated April 24, 2007, recorded in Plat Book 1037 at Page 9.

The above easements are to and does convey to the Grantee, its successors and assigns the following: The right and privilege of entering the aforesaid strip of land, and to construct, maintain and operate within the limits of same, pipe lines, manholes, pump stations, and any other adjuncts and equipment deemed by the Grantee to be necessary for the purpose of pumping and conveying sanitary sewage wastes, and to make such relocations, changes, renewals, substitutions, replacements and additions of or to the same from time to time as said Grantee may deem desirable, the right at all times to cut away and keep clear of all pipe lines and

equipment any and all vegetation that might, in the opinion of the Grantee, endanger or injure the pipe lines, pump stations, equipment or their appurtenances, or interfere with their proper operation or maintenance; the right of ingress to and egress from said strip of land across the land referred to above for the purpose of exercising the rights herein granted. The easements granted herein are appurtenant to and shall run with the Lift Station parcel.

This being a portion of the identical premises conveyed to the Grantor herein by deed from Ada Green and others recorded in Deed Book 2122 at Page 412 on December 20, 2004.

This conveyance is made subject to all restrictions, reservations, setback lines, roadways, easements, zoning ordinances and rights-of-way, if any, that may appear of record on the recorded plat(s), or on the premises, affecting the above described property.

TOGETHER with all and singular the rights, members, hereditaments and appurtenances to the above described premises belonging and in anywise incident or appertaining.

TO HAVE AND TO HOLD all and singular the premises before mentioned unto the said Grantee, its successors and assigns, forever.

AND THE GRANTOR does hereby bind the Grantor and Grantor's assigns, successors, executors and/or administrators to warrant and forever defend all and singular the premises unto the said Grantee, its successors and assigns, against the Grantor, its successors and assigns, and against every person whomsoever lawfully claiming or purporting to claim the same or any part thereof.

WITNESS, the Grantor's hand and seal this 12 day of March, 2012.

**SIGNED, SEALED AND DELIVERED
IN THE PRESENCE OF:**

Five Forks Properties, LLC

Shirley J. Thomas
Lisa Murphy

By: D 7 ✓

Its: Member

STATE OF SOUTH CAROLINA)
)
COUNTY OF GREENVILLE)

ACKNOWLEDGEMENT

I, Shirhan J. Thomason, a Notary Public for the State of South Carolina, do hereby
certify that Daniel E. Youngblood of Five Forks Properties, LLC, personally appeared
before me this 12 day of March, 2012, and acknowledged the due execution of the
foregoing instrument.

Shirhan J. Thomason [SEAL]
My commission expires: 7-6-2020

RELEASE, CONSENT AND JOINDER OF MORTGAGEE

TD Bank, NA, as successor by merger
to Carolina First Bank, the owner and holder of a certain encumbrance, to wit: that
certain mortgage encumbering the property described in the foregoing Dedication and
Conveyance, which mortgage is recorded in Mortgage Book 4448 at page 1147 of the
Office of the Register of Deeds of Greenville County, South Carolina, does hereby join in the
grant of the dedication and conveyance for the purpose of consenting to the same, thereby
agreeing to honor and recognize the same, hereafter, in accordance with its terms.

In Witness whereof, the undersigned has executed this Release, Consent and Joinder this
15 day of March, 2012.

WITNESS

C. Diaper
Sarah H. Hart

TD Bank, NA, as successor by merger
to Carolina First Bank

By: Nate B. Smith
Mortgagee

STATE OF SOUTH CAROLINA)
)
COUNTY OF GREENVILLE)

PROBATE (CORPORATE)

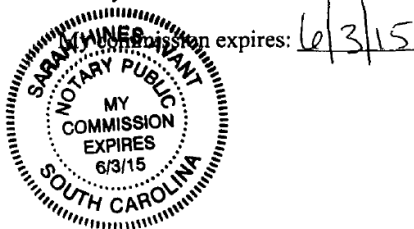
Personally appeared the undersigned witness and made oath that (s)he saw the within
named corporate mortgagee by its duly authorized officers, sign, seal, and as its act and deed
deliver the within written Release, Consent and Joinder of Mortgagee and that (s)he, with the
other witness subscribed above, witnessed the execution thereof.

C. Diaper
Signature of Witness

SWORN to before me this
15 day of March, 2012.

Sarah H. Hart [SEAL]

Notary Public for South Carolina



STATE OF SOUTH CAROLINA
COUNTY OF Greenville

AFFIDAVIT

Page 1 of 2

PERSONALLY appeared before me the undersigned, who being duly sworn, deposes and says:

1 I have read the information on this affidavit and I understand such information.

2 The property being transferred is located at Ganibridge Court, Simpsonville, SC 29168
 bearing Greenville County Tax Map Number 0531.17-01-126.00, was transferred
 by Five Fords Properties, LLC to
Condor Environmental, LLC on 3-12-12

3 Check one of the following: The deed is

- (a) ☐ subject to the deed recording fee as a transfer for consideration paid or to be paid in money or money's worth.
- (b) ☐ subject to the deed recording fee as a transfer between a corporation, a partnership, or other entity and a stockholder, partner, or owner of the entity, or is a transfer to a trust or as a distribution to a trust beneficiary.
- (c) ☒ exempt from the deed recording fee because (See Information section of affidavit): #1

(If exempt, please skip items 4 - 7, and go to item 8 of this affidavit.)

If exempt under exemption #14 as described in the Information section of this affidavit, did the agent and principal relationship exist at the time of the original sale and was the purpose of this relationship to purchase the realty? Check Yes ☐ or No ☐

4 Check one of the following if either item 3(a) or item 3(b) above has been checked (See Information section of this affidavit.):

- (a) ☐ The fee is computed on the consideration paid or to be paid in money or money's worth in the amount of _____
- (b) ☐ The fee is computed on the fair market value of the realty which is _____
- (c) ☐ The fee is computed on the fair market value of the realty as established for property tax purposes which is _____

5 Check Yes ☐ or No ☐ to the following: A lien or encumbrance existed on the land, tenement, or realty before the transfer and remained on the land, tenement, or realty after the transfer. If A Yes, @ the amount of the outstanding balance of this lien or encumbrance is: _____

6. The deed recording fee is computed as follows

- (a) Place the amount listed in item 4 above here: _____
- (b) Place the amount listed in item 5 above here: _____
 (If no amount is listed, place zero here.)
- (c) Subtract Line 6(b) from Line 6(a) and place result here: _____

7 The deed recording fee due is based on the amount listed on Line 6(c) above and the deed recording, fee due is _____

8 As required by Code Section, 12-24-70, I state that I am a responsible person who was connected with the transaction as Seller

9. I understand that a person required to furnish this affidavit who wilfully furnishes a false or fraudulent affidavit is guilty of a misdemeanor and, upon conviction, must be fined not more than one thousand dollars or imprisoned not more than one year, or both.

By: Five Fords Properties, LLC
Responsible Person Connected with the Transaction

SWORN to before me this 12th
day of March 2012

Is: Member
Daniel E. Yangblood
Print or Type Name Here

Notary Public for South Carolina
My Commission Expires 3-27-12

INFORMATION

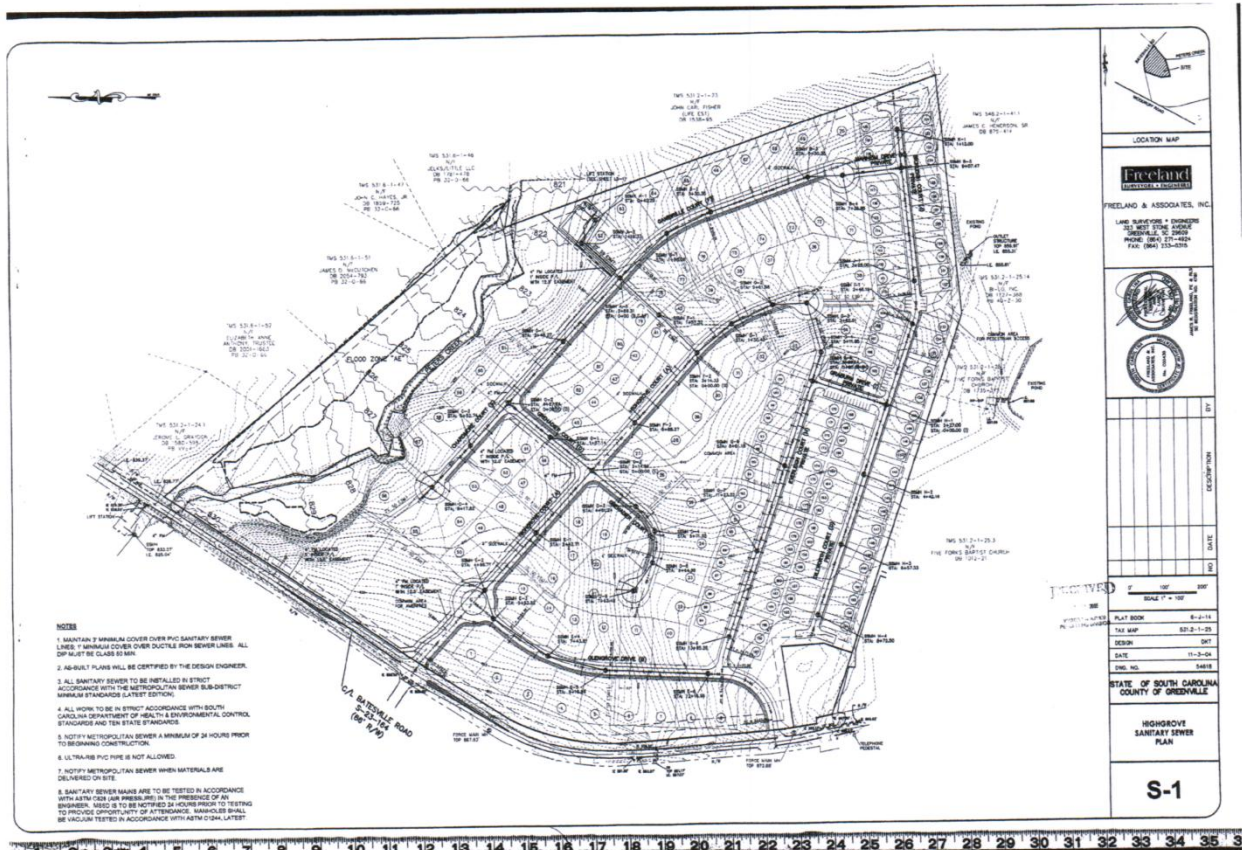
Except as provided in this paragraph, the term "value" means the consideration paid or to be paid in money or money's worth for the realty. Consideration paid or to be paid in money's worth includes, but is not limited to, other realty, personal property, stocks, bonds, partnership interest and other intangible property, the forgiveness or cancellation of a debt, the assumption of a debt, and the surrendering of any right. The fair market value of the consideration must be used in calculating the consideration paid in money's worth. Taxpayers may elect to use the fair market value of the realty being transferred in determining fair market value of the consideration. In the case of realty transferred between a corporation, a partnership, or other entity and a stockholder, partner, or owner of the entity, and in the case of realty transferred to a trust or as a distribution to a trust beneficiary, value means the realty's fair market value. A deduction from value is allowed for the amount of any lien or encumbrance existing on the land, tenement, or realty before the transfer and remaining on the land, tenement, or realty after the transfer. Taxpayers may elect to use the fair market value for property tax purposes in determining fair market value under the provisions of the law.

Exempted from the fee are deeds:

- (1) transferring realty in which the value of the realty, as defined in Code Section 12-24-30, is equal to or less than one hundred dollars,
- (2) transferring realty to the federal government or to a state, its agencies and departments, and its political subdivisions, including school districts,
- (3) that are otherwise exempted under the laws and Constitution of this State or of the United States,
- (4) transferring realty in which no gain or loss is recognized by reason of Section 1041 of the Internal Revenue Code as defined in Section 12-6-40(A),
- (5) transferring realty in order to partition realty as long as no consideration is paid for the transfer other than the interests in the realty that are being exchanged in order to partition the realty,
- (6) transferring an individual grave space at a cemetery owned by a cemetery company licensed under Chapter 55 of Title 39,
- (7) that constitute a contract for the sale of timber to be cut,
- (8) transferring realty to a corporation, a partnership, or a trust in order to become, or as, a stockholder, partner, or trust beneficiary of the entity provided no consideration is paid for the transfer other than stock in the corporation, interest in the partnership, beneficiary interest in the trust, or the increase in value in such stock or interest held by the grantor. However, the transfer of realty from a corporation, a partnership, or a trust to a stockholder, partner, or trust beneficiary of the entity is subject to the fee even if the realty is transferred to another corporation, a partnership, or trust,
- (9) transferring realty from a family partnership to a partner or from a family trust to a beneficiary, provided no consideration is paid for the transfer other than a reduction in the grantee's interest in the partnership or trust. A family partnership is a partnership whose partners are all members of the same family. A family trust is a trust, in which the beneficiaries are all members of the same family. The beneficiaries of a family trust may also include charitable entities. A family means the grantor and the grantor's spouse, parents, grandparents, sisters, brothers, children, stepchildren, grandchildren, and the spouses and lineal descendants of any the above. A charitable entity means an entity which may receive deductible contributions under Section 170 of the Internal Revenue Code as defined in Section 12-6-40(A),
- (10) transferring realty in a statutory merger or consolidation from a constituent corporation to the continuing or new corporation,
- (11) transferring realty in a merger or consolidation from a constituent partnership to the continuing or new partnership, and,
- (12) that constitute a corrective deed or a quit claim deed used to confirm title already vested in the grantee, provided that no consideration of any kind is paid or is to be paid under the corrective or quit claim deed
- (13) transferring realty subject to a mortgage to the mortgagee whether by a deed in lieu of foreclosure executed by the mortgagee or deed pursuant to foreclosure proceedings
- (14) transferring realty from an agent to the agent's principal in which the realty was purchased with funds of the principal, provided that a notarized document is also filed with the deed that establishes the fact that the agent and principal relationship existed at the time of the original purchase as well as for the purpose of purchasing the realty
- (15) transferring title to facilities for transmitting electricity that is transferred, sold, or exchanged by electrical utilities, municipalities, electric cooperatives, or political subdivisions to a limited liability company which is subject to regulation under the Federal Power Act (16 U.S.C. Section 791(a)) and which is formed to operate or to take functional control of electric transmission assets as defined in the Federal Power Act

FILED FOR RECORD IN GREENVILLE COUNTY, SC ROD
2012022210 Book: DE 2402 Page: 5087-5092
March 20, 2012 03:44 56 PM

Timothy J. McNeary





Freeland & Associates, Inc

323 West Stone Ave
Greenville, SC 29609

Tel: (864) 271-4924
Fax: (864) 233-0315

jfreeland@worldnet.att.net

*Still need Calcs for 106' Lots
7/15/05*

RECEIVED

JUN 23 2005

WATER FACILITIES
PERMITTING DIVISION

**LIFT STATION CALCULATIONS
AND SPECIFICATIONS
FOR
HIGHGROVE SUBDIVISION
BATESVILLE ROAD
GREENVILLE, SC
JUNE 23, 2005**



[Signature]
6-23-05

FREELAND and KAUFFMAN, INC.

ENGINEERS • LANDSCAPE ARCHITECTS •

209 West Stone Avenue
Greenville, South Carolina 29609
Telephone 864-233-5497
Fax 864-233-8815

Job _____ Job No. _____ Date _____

Computed By _____

Checked By _____ Date _____

REFERENCE	Calculation For: <u>HIGH GRAVE LIFT STATION</u>	Discipline: _____
	<p><u>Flow Calculations</u></p> <p>PER DEC LOADING CHART, AVERAGE DAILY FLOW IS</p> <p>400 GPD/HOUSEHOLD</p> <p>187 Lots \times 400 GPD/Lot = <u>74,800 GALL/DAY</u> = <u>52 GPM</u></p> <p>PEAK FLOW = 2.5 TIMES AVERAGE DAILY FLOW</p> <p>$= 2.5 \times 74,800 \text{ GAL/DAY}$</p> <p>$= 187,000 \text{ GAL/DAY} - \text{PEAK} = 130 \text{ GPM}$</p> <p>USING THIS BASE FLOW FOR PRELIMINARY SIZING OF WETWELL</p> <p>CYCLE TIME = $t = \frac{V}{Q_1} + \frac{V}{(Q_2 - Q_1)}$</p> <p>ASSUME A BASE CYCLE TIME OF 10 MIN (6/HR.) AND PUMP RATE OF PEAK FLOW</p> <p>$10 = \frac{V}{52 \text{ GPM}} + \frac{V}{(130 - 52)}$; $V = 212 \text{ GALL}$</p> <p>$= 41.7 \text{ CUBIC FEET.}$</p> <p>ASSUME A 6' x 6' WETWELL, $A = 36.0 \text{ SF}$</p> <p>THEREFORE STORAGE HEIGHT = $42 \text{ CF} / 36.0 \text{ SF}$</p> <p>$= 1.17 \text{ FT}$</p>	

Sheet _____ of _____

FREELAND and KAUFFMAN, INC.

ENGINEERS • LANDSCAPE ARCHITECTS •

209 West Stone Avenue
Greenville, South Carolina 29609
Telephone 864-233-5497
Fax 864-233-8915

Job _____ Job No. _____ Date _____

Computed By _____

Checked By _____ Date _____

REFERENCE	Calculation For:	Discipline:
	<u>RESPONSE TIME ESTIMATION</u>	
	BASED ON AVERAGE DAILY FLOW, WE WILL CALC. STORAGE AND TIME TO ALLOW FOR RESPONSE TO HIGH WATER ALARM.	
	ELEV @ HIGH WATER ALARM - 811.0	
	ELEV @ INFLOW - 813.5	
	= 2.5' OF STORAGE TO INVERT	
	$V_d = 2.5 \times (6' \times 6') = 90 \text{ CF} = 673.4 \text{ GALL.}$	
	FLOW IN (AVERAGE) = 52 GPM	
	$t = 673.4 / 52 = 12.95 \text{ MINUTES.}$	
	THE TOP OF THE WET WELL IS 823.25. THE TOP OF THE CLOSEST MANHOLE IS 825.72 \therefore CHECK TIME TO TOP OF WET WELL	
	$V = 823.25 - 813.5 = 9.75' \times (30 \text{ SF}) = 292.5 \text{ CF}$ $= 2,626 \text{ GALL.}$	
	$t = 2626 / 52 \text{ GPM} = 50.5 \text{ MIN.}$	
	TOTAL TIME = 50.5 + 12.95 = 63.45 MIN.	
	ASSUMING NO PUMPING IS TAKING PLACE	
	Sheet _____ of _____	

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209 West Stone Avenue
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REFERENCE	Calculation For:	Discipline:
	<p>THIS WOULD CAUSE THE FLOAT SWITCHES TO BE TO CLOSE TOGETHER, THEREFORE LET STORAGE HEIGHT BE 14 IN. OF 3 FEET. ALSO, PER METRO REQUIREMENTS, KEEP 14 IN. OF 18" BETWEEN ALL FLOAT SWITCHES.</p> <p>$\therefore V = 36.0 \times 3 = 108 \text{ CF} = 807.89 \text{ GALL}$</p> <p><u>RE-CHECKING CYCLE TIME:</u></p> <div style="display: flex; justify-content: space-around;"> <div> $t = \frac{807.9}{52} + \frac{807.9}{130-52}$ </div> <div> $t = 25.9 \text{ MIN}$ $= 2.3 \text{ CYCLES/HR} \therefore \text{OK}$ </div> </div>	

Sheet _____ of _____

ENGINEERS • LANDSCAPE ARCHITECTS •

Job _____ Job No. _____ Date _____
Computed By _____
Checked By _____ Date _____

REFERENCE _____ Calculation For: _____ Discipline: _____

FORCE MAIN DESIGN

TOTAL LENGTH OF FORCE MAIN = 2818 L.F.

BASED ON PROJECTED PUMP RATE OF 130 GPM, AND A MIN. VELOCITY OF 2 FT/S, USE 4" FORCE MAIN

$Q = VA$ $A = \text{AREA OF PIPE} : 3.14 \left(\frac{0.33^2}{4} \right) = 0.0872 \text{ SF}$

$130 \text{ GPM} = 0.2896 \text{ CFS} = V(0.0872)$

$V = 3.32 \text{ FT/S}$ 1.0K

STATIC HEAD

FROM LIFT STATION DIAGRAM, TOTAL LIFT IS:

$819.25 - 805.0 = 14.25 \text{ FT}$

SUCTION HEAD; SINCE THE ϕ OF THE IMPELLER EYE WILL BE SUBMERGED, THERE IS SOME SUCTION HEAD. SINCE THIS WILL VARY FROM PUMP ON TO PUMP OFF, WITH A MIN. SUBMERGANCE OF ABOUT 2 FEET, IT IS NEGLIGIBLE AND THEREFORE, TO BE CONSERVATIVE, WILL BE NEGLECTED.

Sheet _____ of _____

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209 West Stone Avenue
Greenville, South Carolina 29609
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Job _____ Job No. _____ Date _____

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Checked By _____ Date _____

REFERENCE	Calculation For:	Discipline:
	<u>STATIC HEAD (CONT.)</u> AFTER LEAVING THE LIFT STATION, THE FORCE MAIN REACHES IT'S HIGH POINT AT BATESVILLE RD. ASSUMING 3' OF COVER, H.P. = 857.0 STATIC LIFT = 857.0 - 819.25 = 37.75 FT ∴ TOTAL STATIC HEAD = 37.75 FT + 14.25 = 52.0 FT <u>FRICTION LOSS</u> A 4" FORCE MAIN @ 130 GPM PRODUCES HEAD LOSSES AS FOLLOWS; FIRST WE WILL CHECK FOR A "TYPICAL" C=120. THIS ASSUMES SOME AGE ON THE PIPE. WE WILL ALSO DEVELOP SYSTEM CURVES FOR C=100 & C=150 $h_f = 0.002083 (L) \left(\frac{100}{C} \right)^{1.85} \times \frac{Q^{1.85}}{d^{4.8655}}$ d = INSIDE DIA. OF PIPE (INCH) = 4 L = LENGTH OF PIPE (FT) = 2818 + 196 (FITTINGS) = 3014 FT Q = 130 GPM $h_{f C=100} = 60.16 \text{ FT}$ $h_{f C=120} = 42.93 \text{ FT}$ $h_{f C=150} = 28.41 \text{ FT}$	

Sheet _____ of _____

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REFERENCE	Calculation For:	Discipline:
<u>EQUIVALENT LENGTHS FOR FITTINGS</u>		
<u>LIST OF FITTINGS</u>		
	90° BEND - 11 EA	EQ. LENGTH (FT) $10.1 \times (11) = 111.1$
	45° BEND - 4 EA	$5.37 \times (4) = 21.48$
	22½° BEND - 1 EA	N/A
	CHECK VALVE - 1 EA	33.6
	GATE VALVE - 1 EA	2.68
	TEE - RUN - 1 EA	6.71
	BRANCH - 1 EA	20.11
		<u>195.7 FT</u>
		SAY 196 FT.

Sheet _____ of _____

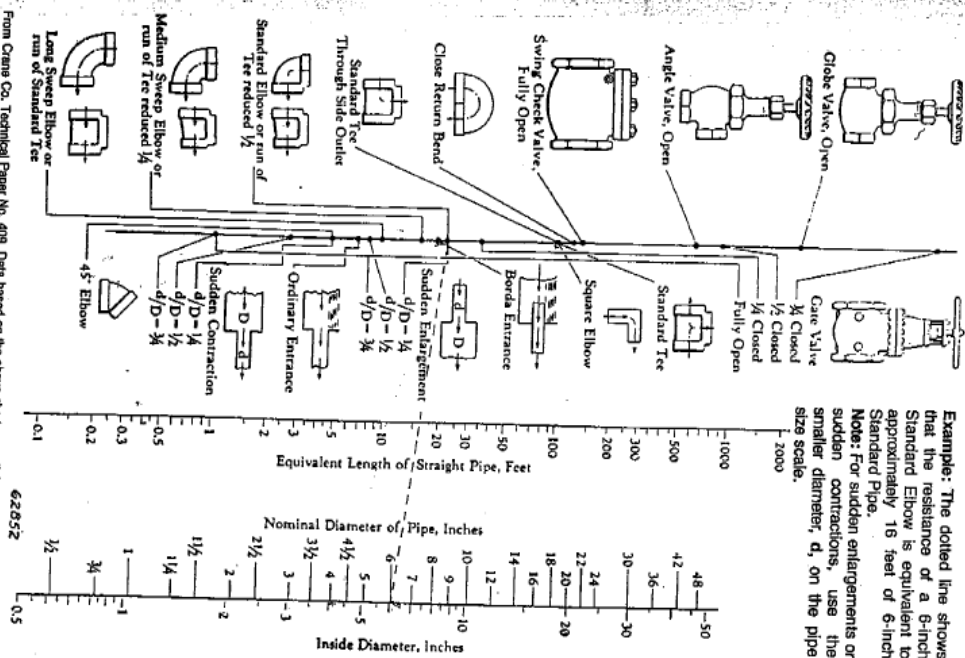
Friction loss of water in pipe fittings in terms of equivalent length—(L)—feet of straight pipe

Nominal pipe size	Actual inside diameter inches d	Friction factor f	Gate valve — full open	90° elbow	Long radius 90° or 45° std elbow	Std tee — thru flow	Std tee — branch flow	Close return bend	Swing check valve — full open	Angle valve — full open	Globe valve — full open	Butterfly valve	90° Welding elbow		Mitre bend	
													r/d = 1	r/d = 2	45°	90°
1/8	.622	.027	.41	1.55	.83	1.04	3.11	2.59	5.18	7.78	17.6					
1/4	.824	.025	.55	2.06	1.10	1.37	4.12	3.43	6.86	10.3	23.3					
1/2	1.049	.023	.70	2.62	1.40	1.75	5.25	4.37	8.74	13.1	29.7					
3/4	1.380	.022	.92	3.45	1.84	2.30	6.90	5.75	11.5	17.3	39.1					
1 1/2	1.610	.021	1.07	4.03	2.15	2.68	8.05	6.71	13.4	20.1	45.6					
2	2.067	.019	1.38	5.17	2.78	3.45	10.3	8.81	17.2	25.8	58.6	7.75	3.45	2.07	2.58	10.3
2 1/2	2.469	.018	1.65	6.17	3.29	4.12	12.3	10.3	20.6	30.9	70.0	9.26	4.12	2.47	3.06	12.3
3	3.068	.018	2.04	7.67	4.09	5.11	15.3	12.8	25.5	36.4	86.9	11.5	5.11	3.07	3.84	15.3
4	4.026	.017	2.68	10.1	5.37	6.71	20.1	16.8	33.6	50.3	114	15.1	6.71	4.03	5.03	20.1
5	5.047	.016	3.36	12.6	6.73	8.41	25.2	21.0	42.1	63.1	143	18.9	8.41	5.05	6.31	25.2
6	6.065	.015	4.04	15.2	8.09	10.1	30.3	25.3	50.5	75.8	172	22.7	10.1	6.07	7.58	30.3
8	7.981	.014	5.32	20.0	10.6	13.3	39.9	33.3	66.9	99.8	226	29.9	13.3	7.98	9.98	39.9
10	10.02	.014	6.58	25.1	13.4	16.7	50.1	41.8	84.8	125	284	29.2	16.7	10.0	12.5	50.1
12	11.838	.013	7.96	29.8	15.8	19.9	59.7	49.7	99.7	149	336	34.8	19.9	11.9	14.9	59.7
14	13.124	.013	8.75	32.8	17.5	21.8	65.6	54.7	104.7	164	372	38.3	21.8	13.1	16.4	65.6
16	15.00	.013	10.0	37.5	20.0	25.0	75.0	62.5	125	188	425	41.3	25.0	15.0	18.8	75.0
18	16.876	.012	16.9	42.2	22.5	28.1	84.4	70.3	140.3	210	478	45.2	28.1	16.9	21.1	84.4
20	18.814	.012	12.5	47.0	25.1	31.4	94.1	78.4	154.3	235	533	49.2	31.4	18.8	23.5	94.1
24	22.628	.012	15.1	56.6	30.2	37.7	113	94.3	184.3	283	641	47.1	37.7	22.6	28.3	113
30	28	.011	18.7	70	37.3	46.7	140	117					46.7	28	35	140
36	34	.011	22.7	85	45.3	56.7	170	142					56.7	34	43	170
42	40	.010	26.7	100	53.3	66.7	200	167					66.7	40	50	200
48	46	.010	30.7	115	61.3	76.7	230	192					76.7	46	58	230
L/D			8	30	16	20	60	50	1/2 to 5 =100 24 to 48 =50	150	340		20	12	15	60

Calculated from data in Crane Co. — Technical Paper 410. $K = f \frac{L}{D}$; $f = \frac{KD}{L}$; $L = \frac{KD}{f}$ where D is inside pipe diameter in feet.

FRISOLL-RAND CAMERON HYDRAULIC DATA

FRICTION - WATER-PIPE FITTINGS

Friction of Water (Continued)
Resistance of Valves and Fittings to Flow
of Fluids in Equivalent Length of Pipe

From Crane Co., Technical Paper No. 408. Data based on the above chart are satisfactory for most applications; for more detailed data and information refer to pages 3-110 to page 3-120 which are based on Crane Co., Technical Paper No. 410.

FREELAND and KAUFFMAN, INC.

ENGINEERS • LANDSCAPE ARCHITECTS •

209 West Stone Avenue
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Job _____ Job No. _____ Date _____

Computed By _____

Checked By _____ Date _____

REFERENCE

Calculation For: _____

Discipline: _____

VELOCITY HEAD

$$h_v = \frac{V^2}{2g}$$

THIS IS TYPICALLY VERY SMALL BUT
WILL BE CHECKED.

$$V = 3.32 \text{ FT/S}$$

$$h = \frac{3.32}{2(32.174)} = 0.05 \text{ FT. DISREGARD}$$

TOTAL DYNAMIC HEAD (TDH) - SIZING PUMP FOR C-120

$$TDH = (h_f) + (h_s) = 42.93 + 52.0 = 94.93 \text{ FT.}$$

∴ SIZE PUMP FOR 130 GPM @ 94' OF HEAD

FREELAND and KAUFFMAN, INC.

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REFERENCE	Calculation For:	Discipline:																																												
<p><u>SYSTEM CURVE, C=120</u></p> <p>STATIC HEAD REMAINS UNCHANGED, $H_s = 52.0$</p> <p>FRICTION HEAD WILL VARY WITH FLOW</p> $H_f = \left(\frac{Q}{\text{DESIGN FLOW}} \right)^2 \times H_f @ 130 \text{ GPM}$ <p style="text-align: right;">(42.93)</p>																																														
	<table border="1"> <thead> <tr> <th>Flow</th> <th>STATIC</th> <th>$h_f = \text{FRICTION}$</th> <th>TDH</th> </tr> </thead> <tbody> <tr><td>0</td><td>52</td><td>0</td><td>52</td></tr> <tr><td>20</td><td>52</td><td>1.02</td><td>53.02</td></tr> <tr><td>40</td><td>52</td><td>4.06</td><td>56.06</td></tr> <tr><td>60</td><td>52</td><td>9.14</td><td>61.14</td></tr> <tr><td>80</td><td>52</td><td>16.26</td><td>68.26</td></tr> <tr><td>100</td><td>52</td><td>25.40</td><td>77.40</td></tr> <tr><td>120</td><td>52</td><td>36.58</td><td>88.58</td></tr> <tr><td>130</td><td>52</td><td>42.93</td><td>93.93</td></tr> <tr><td>140</td><td>52</td><td>49.79</td><td>101.79</td></tr> <tr><td>160</td><td>52</td><td>65.03</td><td>117.03</td></tr> </tbody> </table>	Flow	STATIC	$h_f = \text{FRICTION}$	TDH	0	52	0	52	20	52	1.02	53.02	40	52	4.06	56.06	60	52	9.14	61.14	80	52	16.26	68.26	100	52	25.40	77.40	120	52	36.58	88.58	130	52	42.93	93.93	140	52	49.79	101.79	160	52	65.03	117.03	
Flow	STATIC	$h_f = \text{FRICTION}$	TDH																																											
0	52	0	52																																											
20	52	1.02	53.02																																											
40	52	4.06	56.06																																											
60	52	9.14	61.14																																											
80	52	16.26	68.26																																											
100	52	25.40	77.40																																											
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130	52	42.93	93.93																																											
140	52	49.79	101.79																																											
160	52	65.03	117.03																																											
<p>$Q = 130$, $H = 94 @ \text{DESIGN PT}$</p>																																														
<p>Sheet _____ of _____</p>																																														

FREELAND and KAUFFMAN, INC.

ENGINEERS • LANDSCAPE ARCHITECTS •

209 West Stone Avenue
Greenville, South Carolina 29609
Telephone 864-233-5497
Fax 864-233-8915

Job _____ Job No. _____ Date _____

Computed By _____

Checked By _____ Date _____

REFERENCE	Calculation For:	Discipline:		
	SYSTEM CURVE, C: 100			
	Flow	Static	h_f - Friction	TDH
	0	52	0	52
	50	52	8.90	60.9
	100	52	36.60	87.6
	130	52	61.16	112.16
	150	52	81.10	132.10
	160	52	92.13	143.13
				Q = 118 GPM
				H = 94.5
	SYSTEM CURVE, C: 140			
	Flow	Static	h_f - Friction	TDH
	0	52	0	52
	50	52	4.20	56.2
	100	52	16.81	68.81
	130	52	28.41	80.41
	150	52	37.82	89.82
	160	52	43.04	95.04
				Q = 160
				H = 92

Sheet _____ of _____

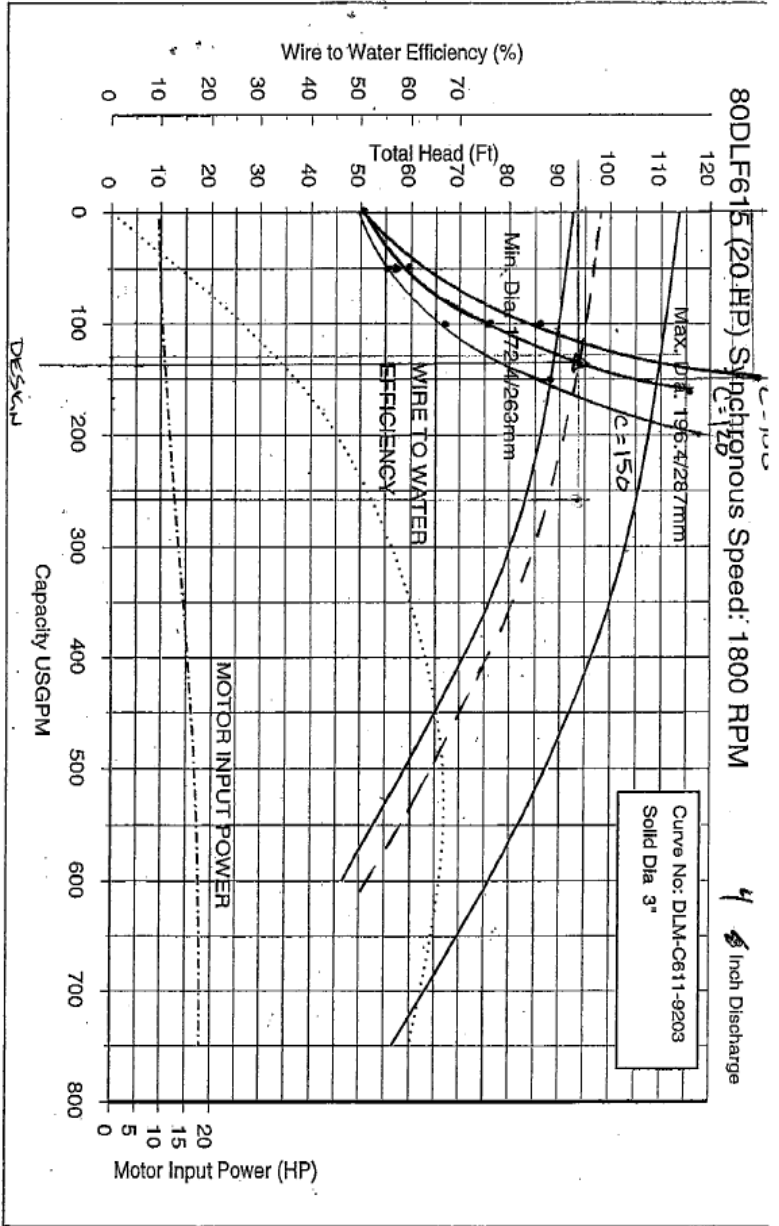


EBARA

IMPELLER SIZE = 178.6 mm

EBARA INTERNATIONAL CORPORATION

DESIGN
PT.



Job _____ Job No. _____ Date _____

Computed By _____

Checked By _____ Date _____

REFERENCE

Calculation For: _____

Discipline: _____

TWO PUMPS RUNNING

WITH BOTH PUMPS RUNNING ($Q = 130 \text{ GPM/PUMP}$)

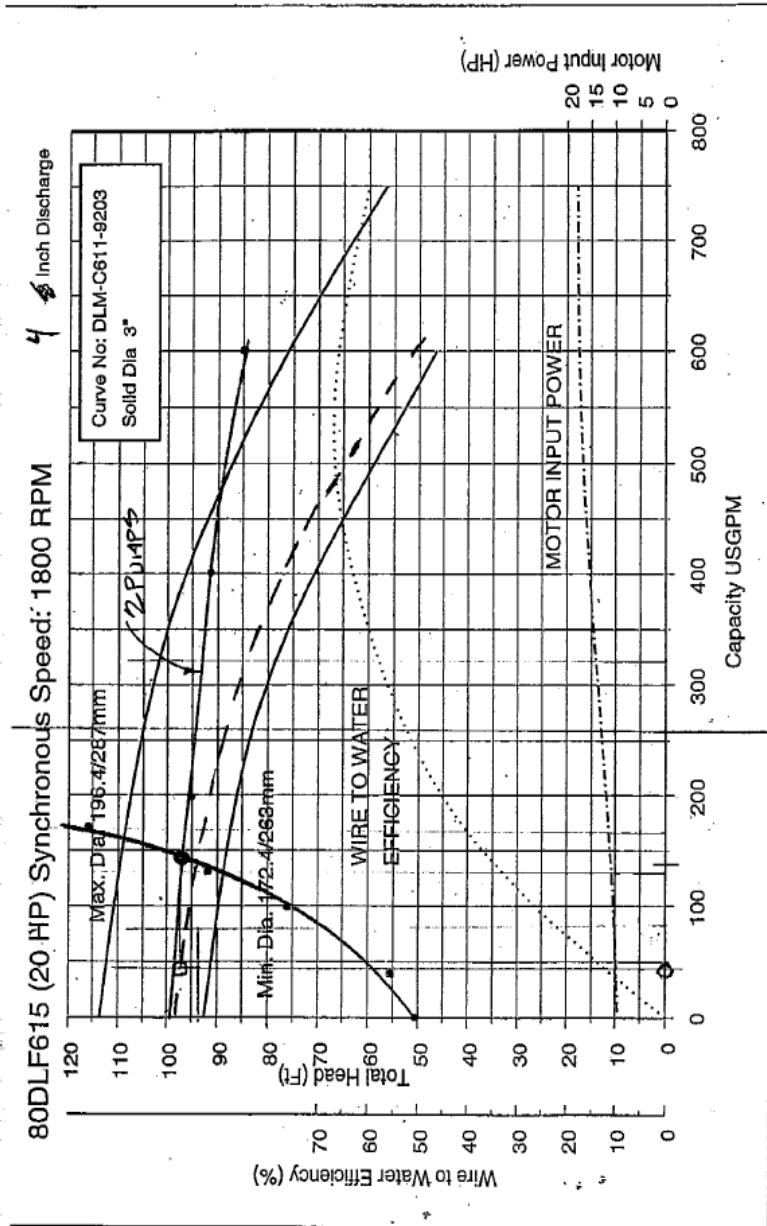
$$Q = 260 \text{ GAL/MIN}$$

$$C = 120$$

$$h_f = 0.002083 (3014) \left(\frac{100}{120} \right)^{1.85} \times \left(\frac{260}{4''} \right)^{1.85}$$

$$h_f = 154.78 \text{ FT}$$

FLOW	STATIC	H_f	TOTAL
0	52	0	52
50	52	5.72	57.72
100	52	22.89	74.89
150	52	51.5	103.52
200	52	91.59	143.59
250	52		
300	52		



EBARA INTERNATIONAL CORPORATION

20 GPM

WITH BOTH PUMPS RUNNING



Job _____ Job No. _____ Date _____

Computed By _____

Checked By _____ Date _____

REFERENCE

Calculation For: _____ Discipline: _____

UPLIFT CALCULATIONS

WETWELL WEIGHT (FULLY SUBMERGED)

$$\text{HEIGHT} = 19.75'$$

$$6' \times 6' \times 19.75' = 711 \text{ CF}$$

$$\text{BOYANCY FORCE} = 711 \text{ CF} \times 62.4 \text{ lb/CF} = 44,366 \text{ lbs}$$

WEIGHT OF WETWELL (EXCLUDING EQUIPMENT)

ASSUME 8" WALL - CROSS YIELDS 17.73 SF

$$17.73 \text{ SF} \times 19.75' = 350.2 \text{ CF (No Top)}$$

$$\text{TOP SLAB @ 8" THICK} = 35.8 \text{ CF}$$

$$350.2 + 35.8 = 386 \text{ CF} \times 150 \text{ lb/CF} = 57,900 \text{ lb}$$

$$\text{FACTOR OF SAFETY} = 2.0$$

$$2.0 \times 44,366 = 88,732 \text{ lbs} - 57,900 \text{ lbs} = 30,832 \text{ lbs}$$

$$\text{ASSUME BASE TO BE } 10'6" \times 10'6" \times 2' = 220.5 \text{ CF}$$

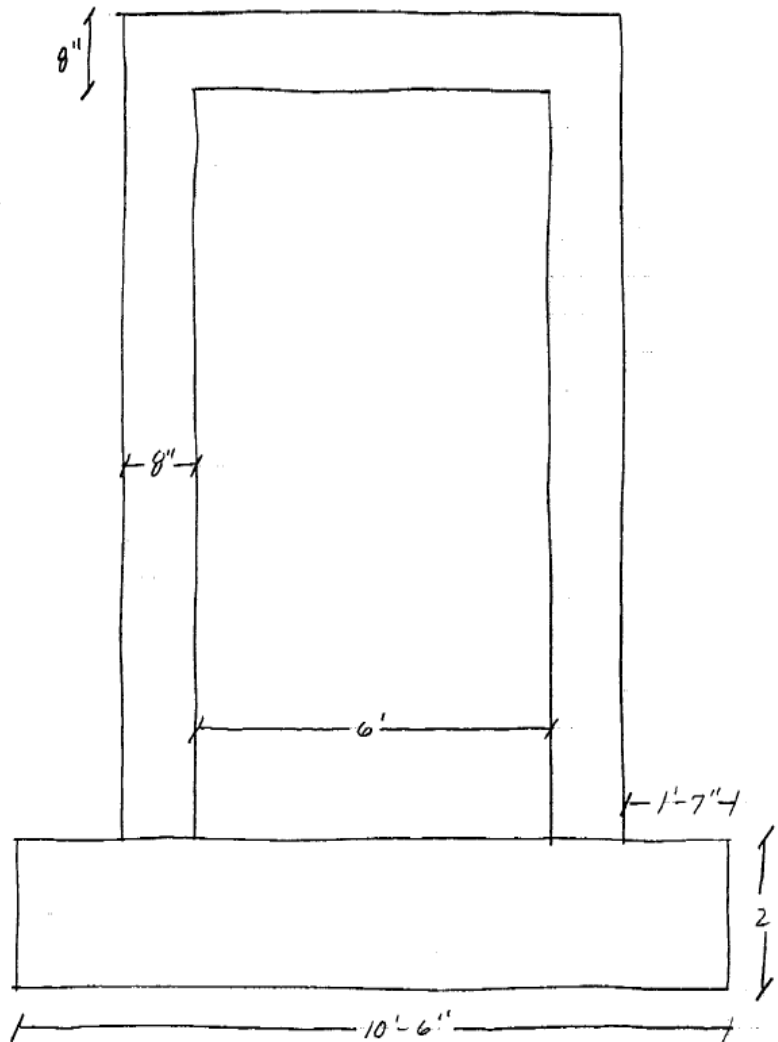
$$220.5 \text{ CF} \times 150 \text{ lb/CF} = 33,075 \text{ lbs} \quad \checkmark \text{ OK}$$

Job _____ Job No. _____ Date _____

Computed By _____

Checked By _____ Date _____

REFERENCE _____ Calculation For: _____ Discipline: _____



Wastewater Construction Permit Bureau of Water



PROJECT NAME: HIGHGROVE	COUNTY: GREENVILLE
LOCATION: BATESVILLE RD @ WOODRUFF RD	

PERMISSION IS HEREBY GRANTED TO: FIVE FORKS PROPERTIES LLC
1909 E MAIN ST
EASLEY SC 29640

for the construction of a sanitary sewer system in accordance with the construction plans, specifications, design calculations and the Construction Permit Application signed by James Freeland, Registered Professional Engineer, S.C. Registration Number: 4781.

PROJECT DESCRIPTION: 5268 lf of 8" gravity sewer line, a pump station, 2816 lf of 4" force main and 31 manholes to serve 106 lots.

TREATMENT FACILITY: The wastewater will be discharged to the WCRSA GILDER CREEK WWTP (NPDES permit SC0040525) at a design flow rate of 42400 gallons per day (GPD).

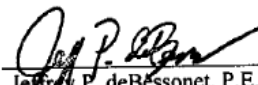
STANDARD CONDITION:

In accepting this permit, the owner agrees to the admission of properly authorized persons at all reasonable hours for the purpose of sampling and inspection. This is a permit for construction only and does not constitute DHEC approval, temporary or otherwise, to place the system in operation. An Approval to Place in Operation is required and can be obtained following the completion of construction by contacting the EQC GREENVILLE EQC OFFICE at 864-241-1090. Additional permits may be required prior to construction (e.g., Stormwater).

SPECIAL CONDITIONS:


None

PERMIT NUMBER:	31390-WW
ISSUANCE DATE:	July 21, 2005
EXPIRATION DATES:	July 21, 2007 (to begin construction) July 21, 2008 (to obtain Approval to Place in Operation)


Jeffrey P. deBessonnet, P.E., Director
Water Facilities Permitting Division

RJR

WW-1309-13

 <small>PROMOTE PROTECT PROSPER</small>	<h2 style="margin: 0;">Construction Permit Application</h2> <h3 style="margin: 0;">Water/Wastewater Facilities</h3>	<div style="border: 1px solid black; padding: 2px; display: inline-block;">BUREAU OF WATER</div>
<p>DRP SUBMITTAL: No <input checked="" type="checkbox"/> Yes <input type="checkbox"/></p> <p>SELECT ONE <input type="checkbox"/> Water Facilities <input checked="" type="checkbox"/> Wastewater Facilities <input type="checkbox"/> Water & Wastewater Facilities</p>		
<p>I. Project Name: <u>Highgrove</u> County: <u>Greenville</u></p>		
<p>II. Project Location (street names, etc.):</p> <div style="border: 1px solid black; padding: 2px; min-height: 20px;"> <u>Batesville Rd at Woodruff Rd</u> </div>		
<p>III. Project Description(s): <u>Water System:</u></p> <div style="border: 1px solid black; height: 30px; margin-top: 5px;"></div> <p><u>Wastewater System:</u></p> <div style="border: 1px solid black; padding: 2px; min-height: 30px;"> <u>Approximately 5288 LF of 8" gravity sewer, approximately 2816 LF of 4" force main, and 31 manholes to serve 106 single-family homes.</u> </div>		
<p>Project Type (A-Z): <u>Water:</u> _____ <u>Wastewater:</u> <u>B Gravity Sewer & Pump Station</u></p>		
<p>IV. Initial Owner: [Time of Application] Name/Organization: <u>Five Forks Properties, LLC</u></p> <p>Address: <u>1909 East Main St</u> City: <u>Easley</u> State: <u>South Carolina</u> Zip: <u>29640</u> Phone: <u>(864) 306-2995</u></p>		
<p>V. Final Owner: [After Construction] Name/Organization: <u>Metropolitan Sewer Sub-District</u></p> <p>Address: <u>120 Augusta Arbor Way</u> City: <u>Greenville</u> State: <u>South Carolina</u> Zip: <u>29605</u> Phone: <u>(864) 277-4272</u></p>		
<p>VI. Entity Responsible for Final Operation & Maintenance of System:</p> <p><u>Water System:</u> Name: _____ Address: _____</p> <p>City: _____ State: <u>South Carolina</u> Zip: _____ Phone: _____ Fax: _____</p> <p><u>Wastewater System:</u> Name: <u>Same as Final Owner</u> Address: _____</p> <p>City: _____ State: <u>South Carolina</u> Zip: _____ Phone: _____ Fax: _____</p>		
<p>VII. Engineering Firm: Name: <u>Freeland & Associates, Inc</u> Address: <u>323 West Stone Ave</u></p> <p>City: <u>Greenville</u> State: <u>South Carolina</u> Zip: <u>29609</u> Phone: <u>(864) 271-4924</u> Fax: <u>(864) 233-0315</u></p>		
<p>VIII. Is this project: A) Part of a phased project? No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> If Yes, Phase _____ of _____</p> <p>B) A revision to a previously permitted project? No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> If Yes, Permit # _____</p> <p>Date Approved: _____ (MM/DD/YYYY) Project name (if different): _____</p> <p>C) Submitted based on a Schedule of Compliance or Order issued by DHEC? No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Order # _____</p> <p>D) Anticipating funding by the State Revolving Fund (SRF)? No <input checked="" type="checkbox"/> Yes <input type="checkbox"/></p> <p>E) Crossing a water body? (e.g., river, creek) No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> If Yes, Name of water body _____</p>		
<p>IX. Are Standard Specifications approved by DHEC being used on this project? No <input type="checkbox"/> Yes <input checked="" type="checkbox"/> If Yes:</p> <p><u>Water:</u> Date Approved: _____ (MM/DD/YYYY) Approved for whom: _____</p> <p><u>Wastewater:</u> Date Approved: <u>09/17/1998</u> (MM/DD/YYYY) Approved for whom: <u>Freeland & Associates, Inc</u></p>		
<p>X. Wastewater Systems: A) Type: Domestic <input checked="" type="checkbox"/> Process (Industrial) <input type="checkbox"/> Combined (Domestic & Process) <input type="checkbox"/></p> <p>B) Total average design flow of the project not to exceed <u>42,400</u> GPD</p> <p>C) <u>Sewers or Pretreatment</u> 1. Name of facility (e.g., POTW) treating the wastewater: <u>Gilder Creek WWTP</u></p> <p>2. NPDES/ND Number of facility in Item #1: <u>SC0040525</u></p> <p><u>Treatment Systems</u> 3. Date Preliminary Engineering Report (PER) approved: _____ (MM/DD/YYYY)</p> <p>4. NPDES/ND application submitted? No <input type="checkbox"/> Yes <input type="checkbox"/> If Yes, Date: _____ (MM/DD/YYYY)</p> <p><u>Disposal Sites</u> 5. Effluent Disposal Site (Description): _____</p> <p>6. Sludge Disposal Site (Description): _____</p>		
<p>XI. Water Systems: Project located within city limits? No <input type="checkbox"/> Yes <input type="checkbox"/></p> <p>Public water system providing water (Name & System ID No.): _____ No.: _____</p> <p>New water system (including master meter)? No <input type="checkbox"/> Yes <input type="checkbox"/> If Yes, System name: _____</p>		

XII. Type of Submittal: Complete Section A (Standard) or Section B (Delegated Review Program - DRP).

A) Standard Submittal must include the following, where applicable:

- ☒ 1. A transmittal letter outlining the submittal package.
- ☒ 2. The **original** construction permit application, properly completed, with three (3) copies.
- ☒ 3. Three (3) sets of signed and sealed plans and specifications. Specifications may be omitted if approved standard specifications are on file with DHEC.
- ☒ 4. One (1) additional overall plan sheet showing the proposed and existing (only in the area of proposed construction) water and wastewater lines (highlighted for identification) and their sizes.
- ☒ 5. Three (3) sets of the appropriate design calculations. **WASTEWATER:** Design flow (based on R.61-67, Appendix A), pump station calc's. and pump curve. **WATER:** Recent flow test from a location near the tie-on site, design calc's. indicating pressure maintained in the distribution system during max. instantaneous demand, fire flow and flushing velocities achieved. Number/types of service connections, well record form, pumping test results, etc.
- ☒ 6. Three (3) copies of a detailed 8½" x 11" location map, separate from the plans.
- ☐ 7. Three (3) copies of construction easements unless the project owner has the right of eminent domain.
- ☒ 8. A letter(s) from the entity supplying water and/or providing wastewater treatment stating their willingness and ability to serve the project, including pretreatment permits, if applicable. The letter should include the specific flow and, when applicable, the specific number of lots being served.
- ☒ 9. A letter(s) from the entity agreeing to be responsible for the O&M of the water and/or wastewater system.
- ☒ 10. Application fee enclosed \$ 200.00. (Refer to Instructions).
- ☐ 11. **WATER SYSTEMS:** a) A letter from the local government which has potable water planning authority over the area, if applicable, in which the project is located, stating project consistency with water supply service plan for area.
b) For wells, four (4) copies of a wellhead protection area inventory.
c) For new wells, a viability demonstration is required in accordance with Regulation 61-58.1.B.(4).

Note: Other approvals may include 208 and OCRM certification, and navigable waterway permitting.

B) DRP submittal (treatment plants are not covered) must include the following, where applicable:

- ☐ 1. A transmittal letter, signed by the professional engineer representing the DRP entity, noting this is a DRP submittal. The letter should state that the project has been reviewed and complies with R.61-58 and/or R.61-67.
- ☐ 2. The **original** construction permit application, properly completed, with two (2) copies.
- ☐ 3. Two (2) sets of the signed and sealed plans.
- ☐ 4. One (1) additional plan sheet with water and wastewater lines highlighted, as required under Sec. XII.A.4. above.
- ☐ 5. Two (2) sets of the appropriate design calculations. **WASTEWATER:** Same information as required under Section XII.A.5. above. **WATER:** Same information as required under Section XII.A.5. above.
- ☐ 6. Two (2) copies of a detailed 8½" x 11" location map, separate from the plans.
- ☐ 7. Two (2) copies of construction easements, unless the project owner has the right of eminent domain.
- ☐ 8. DHEC's Ocean and Coastal Resource Management certification (for projects in applicable counties).
- ☐ 9. DHEC's Water Quality permit or conditions for placement in navigable waters, and other Agency approvals.
- ☐ 10. **WASTEWATER SYSTEMS:** a) A letter of acceptance from the entity providing the treatment of the wastewater that includes the specific flow and, when applicable, the specific number of lots being accepted.
b) A letter from the organization agreeing to be responsible for the O&M of the sewer system.
c) The 208 Plan certification from the appropriate Council of Governments (designated 208 areas), or from DHEC on the non-designated 208 areas.
- ☐ 11. **WATER SYSTEMS:** A letter from the local government which has potable water planning authority over the area, if applicable, in which the project is located, stating project consistency with water supply service plan for area.
- ☐ 12. Fee of \$75 for water and \$75 for sewer (\$150 if combined).

Note: The DRP entity should ensure that a copy of the final approved plans are returned to the design engineer.

XIII. Construction plans, material and construction specifications, the engineering report including supporting design data and calculations are herewith submitted and made a part of this application. I have placed my signature and seal on the engineering documents submitted, signifying that I accept responsibility for the design of this system, and that I have submitted a complete administrative package.

Engineer's Name (Printed): James R. Freeland

Signature: 

Registered Professional Engineer

S.C. Registration Number: 4781

XIV. Prior to final approval, I will submit a statement certifying that construction is complete and in accordance with the approved plans and specifications, to the best of my knowledge, information and belief. This certification will be based upon periodic observations of construction and a final inspection for design compliance by me or a representative of this office who is under my supervision.

Engineer's Name (Printed): James R. Freeland

Signature: 

Registered Professional Engineer

S.C. Registration Number: 4781

XV. I hereby make application for a permit to construct the project as described above. I have read this application and agree to the requirements and conditions and agree to the admission of properly authorized persons at all reasonable hours for the purpose of sampling and inspection.

Owner's Name (Printed): Five Forks Properties, LLC.

Signature: 

Owner's Title: Owner

Date: 04/21/2005

(MM/DD/YYYY)



Freeland & Associates, Inc

323 West Stone Ave
Greenville, SC 29609

Tel: (864) 271-4924
Fax: (864) 233-0315

jfreeland@worldnet.att.net

January 17, 2007

Ms. Angie Price
DHEC - Appalachia II EQC
301 University Ridge, Suite 5800
Greenville, SC 29601

Re: **Highgrove Phase 1 Subdivision**
DHEC Permit Number: ~~31222-1000~~
107 Lots (1-61, 79-105, 170-187, Rec Area)
Manholes A-1 TO A-3, C-1 TO C-4, D-1 TO D-6, E-1 TO E-6,
F-1 TO F-3, G-1 TO G-8, H-1
5,262' of 8" PIPE

Dear Ms. Price:

This letter is to certify to the best of my knowledge, information, and belief that the referenced sanitary sewer system has been installed in accordance with the approved plans and specifications and good engineering practice.

At this time we request a partial permit to operate for this section. Thank you for your time and input on this matter. Please call us at 271-4924 if you have any questions or comments.

Sincerely,
Freeland & Associates, Inc.

A handwritten signature in black ink, appearing to read "D. Kevin Tumblin".

D. Kevin Tumblin, PE, PLS

Enclosure

RECEIVED

JAN 19 2007

REGION 2
GREENVILLE EQC.

JUL 8. 2005 2:58PM Freeland & Associates, Inc.

No. 1334 P. 3



Administrative Office
561 Mauldin Road • Greenville, SC 29607
864/299-4000 • Fax 864/277-5852

Operations/Laboratory/Pretreatment
660 Mauldin Road • Greenville, SC 29607
864/292-4040 • Fax 864/299-4059

May 25, 2005

RECEIVED

JUL 2005 2005

WATERWATER FACILITIES
PERMITTING DIVISION

Mr. Kevin Pulis
Freeland & Associates, Inc.
323 West Stone Ave.
Greenville, South Carolina 29609

**RE: Highgrove Subdivision - Phase I
Batesville Road in Greenville County, South Carolina**

Dear Mr. Pulis:

Based on your submittals dated April 21 and May 24, 2005, Western Carolina Regional Sewer Authority (WCRSA) has sufficient capacity for the 42,400 gallons per day flow of wastewater resulting from 106 single-family homes in the referenced subdivision. WCRSA will treat the 42,400 gpd flow from the Highgrove Subdivision at the Gilder Creek Wastewater Treatment Plant, NPDES Permit No. SC0040525. Please notify WCRSA prior to the construction of the force main line.

WCRSA will not own nor operate the Highgrove Pump Station/Force Main, however the pump station must be designed to comply with WCRSA's Pump Station Guidelines (Revision 4/13/99). In addition, at such time that a gravity line is installed along Peters Creek to serve this development, the Highgrove Pump Station must be decommissioned and connected to the gravity sewer.

All sewer connections directly or indirectly served by WCRSA are subject to a "New Account Fee." No tie-ins will be allowed until a connection permit is issued by WCRSA. Please notify WCRSA if there are any changes in total daily flows.

Sincerely,

Brian Bishop
J. Brian Bishop, P.E.
Engineering Supervisor

cc: SCDHEC - Greenville
SCDHEC - Columbia
Metropolitan Sewer Subdistrict
k:\engineering\brian\sewer availability\gilder creek\highgrove phase I.doc

Celebrating 75 Years of Environmental Stewardship

COMMISSIONERS:
M. GRAHAM PROFFITT, III, Chairman
CHARLES F. STYLES
JOEL H. BYARS
RANDOLPH L. ESKEW
JIM GREGORIE



MICHAEL F. DICKSON
General Manager

January 17, 2007

DHEC # 31-390-WW

Mr. Kevin Tumblin
Freeland & Associates, Inc.
323 West Stone Avenue
Greenville, SC 29609

Subject: Highgrove Subdivision Phase 1 Gravity Sanitary Sewer (lots 1-61, 79-105, 170-187 & Recreation Area)

Dear Mr. Tumblin,

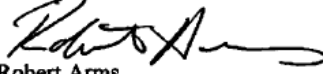
Based on information submitted and certified by the design engineer, the sanitary sewer system for this project has been accepted for ownership, operation and maintenance by Metropolitan Sewer Sub-district. This letter of acceptance is for the gravity sewer system and easements only and does not grant permission to discharge flow into the system. A "Permit to Operate" must be issued by the South Carolina Department of Health and Environmental Control (DHEC) prior to any flow being discharged into the system.

Neither this letter nor the dedication and acceptance of the system shall be deemed to waive any rights that the Sub-district may have for defects in the line not caused by the Sub-district.

*****Special Conditions ***If the newly installed sanitary sewer system is within proposed or existing streets, Metropolitan will not be responsible for any damage claims due to manhole height prior to the final pavement being in place and approved by the appropriate agency .**

Sincerely,

Metropolitan Sewer Sub-district


Robert Arms
Engineering Coordinator

cc: Greenville County Planning Commission
A. Marvin Quattlebaum, Attorney
SCDHEC/Greenville
Project File

STATE OF SOUTH CAROLINA }
 }
COUNTY OF } INSPECTION AND MAINTENANCE
 } AGREEMENT

This agreement (Agreement) is made and entered into this 13th day of July, 2006, by "Condor Environmental, LLC" (hereinafter referred to as the "Operator") and "Pinckney Construction, Inc." (hereinafter referred to as the "Owner").

WITNESSETH:

WHEREAS, the Owner owns or controls the property known as, "Mountain Creek Landing".

WHEREAS, a contract is to be executed between the Owner and a management entity prior to the issuance of a Permit for Operation (Operation Permit) for said system; and

WHEREAS, a condition of the Operation Permit for said system a properly executed contract between the Owner and a management entity that shall be in effect for as long as the system is in use; and

WHEREAS, the Operator is a management entity of a type approved by the SC Department of Health and Environmental Control (SCDHEC).

NOW THEREFORE, in consideration of the promises and mutual covenants contained in this Agreement, it is hereby agreed by and between the Owner and the Operator as stipulated below.

1. **The Operator Obligations.** The Operator shall perform the following services on the Owner's system located at "Mountain Creek Landing".
 - Inspect facility for proper operation
 - Notify owner of mechanical malfunction and correct mechanical malfunctions, and/or provide septic tank, piping or drain field repairs.
 - Pump septic tanks when required
 - If the alternative drain field is installed, inspect pump station twice per month and monitor either the telephone dialer system or supervisory control and data acquisition system
2. **The Owner's Obligations.**
 - a. The Owner shall pay the Operator the sum of \$ "\$2,340.00 per "year" for the first year and increasing by three (3) percent each subsequent year, paid monthly for inspections, routine operation procedures and reports.
 - b. The Owner is responsible for the costs associated with any mechanical, septic tank, piping or drain field repairs.

- c. If the alternative drain field is required due to failure or poor performance of the primary drain field, the Owner will be required to install the alternative drain field with an appropriate pump station convey the wastewater to the alternative drain field.
 - d. If the alternative drain field and pump station are required, the Owner will be required to pay the Operator for twice per month inspections of the pump station and a telephone line for the pump station monitoring system, in addition to other services.
3. **Term.** This Agreement shall remain in effect until terminated as set forth below:
- a. Automatic termination. This Agreement shall automatically terminate if the Operation Permit for the system is revoked and all appeals of the revocation are exhausted or time for taking any appeal has passed.
 - b. Termination by Mutual Consent. The Parties may mutually agree to terminate this Agreement by giving written notice of termination by mutual consent to DHEC, thirty (30) days in advance of the date of termination.
 - c. Termination by the Owner. The owner may terminate this Agreement by giving notice to the Operator and to the both the local health department and SCDHEC thirty (30) days in advance of the date of termination.
 - d. Termination by the Operator
 - (1) The Operator may terminate this agreement for cause by giving written notice of intent to terminate this Agreement to the Owner and to DHEC thirty (30) days in advance of the date of termination. Cause shall be defined as:
 - a. Failure to remit payment for any bill for services performed under and in accordance with this Agreement if said bill is not paid within "60" days of receipt by the Owner. If said bill is paid after notice of termination is given but prior to the date of termination of this Agreement, this Agreement shall continue in full force and effect; or
 - b. Failure of the Owner to provide to the Operator authorization to complete needed repairs or satisfactory evidence that needed repairs or satisfactory evidence that needed repairs to the system were completed by another entity within "30" days of receipt of notice of need repairs or evidence of completion of said repairs is provided after notice of termination is given but prior to the date of termination of this Agreement, this Agreement shall continue in full force and effect;

- c. Failure of the Owner to allow the Operator such access to the system as is reasonable necessary in order for the Operator to comply with the terms of this Agreement.

4. **Assignment**

- a. Assignment by the Owner. The owner shall notify the Operator of the name and address of any purchaser of the property on which the system is located. The Owner shall also notify any purchaser of the property on which the system is located of the existence of this Agreement and shall assign all rights and duties under this Agreement to said purchaser.
- b. Assignment by the Operator. The Operator may not assign its rights and duties under this Agreement to another management entity unless approved by SCDHEC. The Operator will provide thirty (30) days advance written notice to the Owner and to both the local health department and SCDHEC of a request for assignment.

- 5. **Use of Subcontractors.** The Operator may subcontract with such manufacturers, suppliers, and contractors as it deems necessary or desirable to perform any of the Operators duties under this Agreement. The Operator shall at all times remain responsible for the performance of and payment for all work performed by all subcontractors.
- 6. **Representations.** The parties represent to each other that each has the power, authority, and legal right to enter into and perform its obligation as set forth in this Agreement.
- 7. **Regulatory Amendments.** References in this Agreement Regulations 61.56 shall include such rules as they may need amended in the future.
- 8. **No Implied Wavier.** The waiver by either party of a default or a breach by the other party of any provision of this Agreement shall not operate or be construed to operate as a waiver of any subsequent default or breach. The failure at any time of either party to enforce any provision of this Agreement (a) shall not be construed to be a waiver of such provisions, or of any other provision; and (b) shall not in any way affect the validity of this Agreement, or any part of this Agreement, or the right of either party thereafter to enforce each and every provision of this Agreement.
- 9. **Notice.** Every notice required under this Agreement shall be in writing and shall be deemed sufficiently given if delivered in person or registered mail, return receipt, requested, postage prepaid to the party to be notified and addressed as follows:

To the Owner: Richard D. Pinckney
Pinckney Construction, Inc.
905 Garlington Road
Greenville, SC 29615

To the Operator: Condor Environmental, LLC
P.O. Box 10005
Greenville, SC 29603-0005

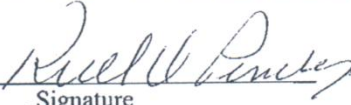
To SCDHEC: South Carolina Department of Health & Environmental Control
Bureau of Water, Domestic Wastewater Permitting Section
2600 Bull Street
Columbia, SC 29201

The date of any notice shall be the date of personal delivery or the date shown on the return receipt as the date of delivery or attempted delivery, as the case may be. Changes in the respective addresses to which notice may be directed may be made from time to time by either party by notice to the other party.

10. **Place of Agreement.** This Agreement and any questions concerning its validity, construction, or performance shall be governed by the laws of the State of South Carolina, notwithstanding the place of execution or the order in which the signatures of the parties are affixed.
11. **Entire Agreement and Amendment.** This Agreement supersedes all prior negotiations, agreements, and understandings between the parties with respect to the subject matter hereof and constitutes the entire agreement between the parties with respect to the subject matter hereof. To be effective, any amendment or modification to this Agreement must be in writing and must be signed by the parties.
12. **Severability.** In the event that any provision of this Agreement shall for any reason be determined to be invalid, illegal or unenforceable in any respect, the parties shall negotiate in good faith and agree to such amendments, modifications, or supplements of or to this agreement or such other appropriate actions as shall, to the maximum extent practicable in light of such determination, implement and give effect to the intentions of the parties as reflected on the agreement, and the other provisions of this Agreement shall, as so amended, modified, supplemented or otherwise affected by such action, remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement in duplicate original, one of which is retained by each of the parties, the date and year first above written.

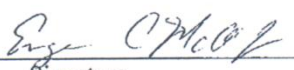
Owner: PINCKNEY CONSTRUCTION, INC.

By: 
Signature
Richard D Pinckney Pres.
Printed Name & Title
7-13-06
Date

ATTEST:



CONDOR ENVIRONMENTAL, LLC

By: 
Signature
Eugene C. McCall, Jr. President
Printed Name & Title
July 13, 2006
Date

ATTEST:



STATE OF SOUTH CAROLINA }
 }
 COUNTY OF GREENVILLE } ESCROW AND OPERATION AGREEMENT

This agreement is made and entered this 13th day of July, 2006, by and between Pinckney Construction, Inc., hereinafter referred to as "Owner", and the South Carolina Department of Health and Environmental Control, hereinafter referred to as "SCDHEC."

In consideration of the following, the parties agree that:

1. A sewer plan (see plan) on a piece of property owned by the Owner known as "Mountain Creek Landing" covering the new condominiums totaling "twenty three (23)" units with two bedrooms in each unit, totaling forty six (46); seventeen (17) of the units with a total of thirty four (34) bedrooms will be connected to the septic tank system.
2. Owner shall enter into an agreement with an operator to provide inspection & operation and maintenance services. In addition, Owner shall insure the availability of funds for the repair and maintenance of the sewer system. Owner shall require in such agreement that operator will employ or contract with licensed engineers as needed to perform said services.
3. To satisfy the requirements of SCDHEC for additional assurances to provide availability of funds for the servicing entity for inspection responsibilities and to provide a fund for the maintenance and operation of the sewer system by Owner or its successors and assigns, and escrow fund shall be established as follows:
 - a) "Forty Two Thousand" and No/100 Dollars (\$ "42,000.00") shall be deposited in a developers escrow account (Developer's Escrow Account) established with a Bank of mutual acceptability upon issuance of the permit.
 - b) Thereafter, upon the closing of each unit, Owner shall deposit "Seven Hundred" and Five/100 Dollars (\$ "705.00") into a separate Condominium Association (CA) escrow account. In addition, the Owner shall require in the Articles of Incorporation for the CA that each unit pay an annual fee of \$ "250.00" into the CA escrow account. As the units are completed, the escrow balance will progressively increase to a total of "Twelve Thousand" and No/100 Dollars. In order to maintain a minimum balance of \$ "12,000.00" in the CA escrow account, the bylaws shall require that any amount expended from the account shall be replaced by the CA by funds derived from special assessments charged to property owners who are benefiting from the system.
 - c) When the CA's Escrow Account reaches \$ "12,000.00", the developer's Escrow Account will be terminated. The Developer's Escrow Account shall be placed in the CA's Escrow Account with an

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WATER FACILITIES
 PERMITTING DIVISION

initial balance of \$54,000, for the maintenance and operation of the sewer system by the Owner or its successors and assigns.

4. The Operator shall be entitled to reasonable compensation for its services for the costs of inspections and reporting the condition of the sewer system to the Owner for maintenance and repairs.
5. If Owner or the Condominium Association, as applicable), is unable or unwilling to make any required repairs or replacements or to perform any maintenance, SCDHEC may allow Operator or another contractor to perform such repairs or replacements and the Operator or the other contractor, as applicable, will be reimbursed from the Developer's Escrow Account, or the CA's Escrow Account, as applicable, upon presentation of an appropriate detailed statement showing the costs and expenses. Owner will insure CA's Articles of Incorporation recognize this contingency.
6. In the event the "Mountain Creek Landing" ceases to provide its own sewer system and ties onto another private, or public system, the remaining balances of the HOA Escrow Account shall revert to the Homeowner's Association its successors or assigns, after a deduction of all costs of inspection payable to the Operator, the accrued charges for maintenance and repairs and after approved by SCDHEC.
7. It is understood that any approval by SCDHEC or any department thereof shall extend only to the "Mountain Creek Landing" described hereinabove, unless a modification is approved by SCDHEC. No additional units or bedrooms may be connected to the Community septic tank system beyond the seventeen (17) units and thirty four (34) bedrooms noted in item (1) above without SCDHEC prior approval.
8. In the event that the Operator terminates its service agreement as servicing entity; or the Owner terminates the operator as the servicing entity, then Owner has the responsibility to locate a new service provider immediately with such new service provider to be approved by SCDHEC.

Owner: On behalf of "Pinckney Construction, Inc." and
the HOA to be established:

By: Richard D. Pinckney
Seal

Richard D. Pinckney Pres
Printed Name & Title

7-13-06
Date

ATTEST:

Stephens O. McDaniel

SOUTH CAROLINA DEPARTMENT OF
HEALTH AND ENVIRONMENTAL CONTROL
DOMESTIC WASTE WATER PERMITTING
SECTION
BUREAU OF WATER

By: Michael J. Montebello
Michael J. Montebello, Manager

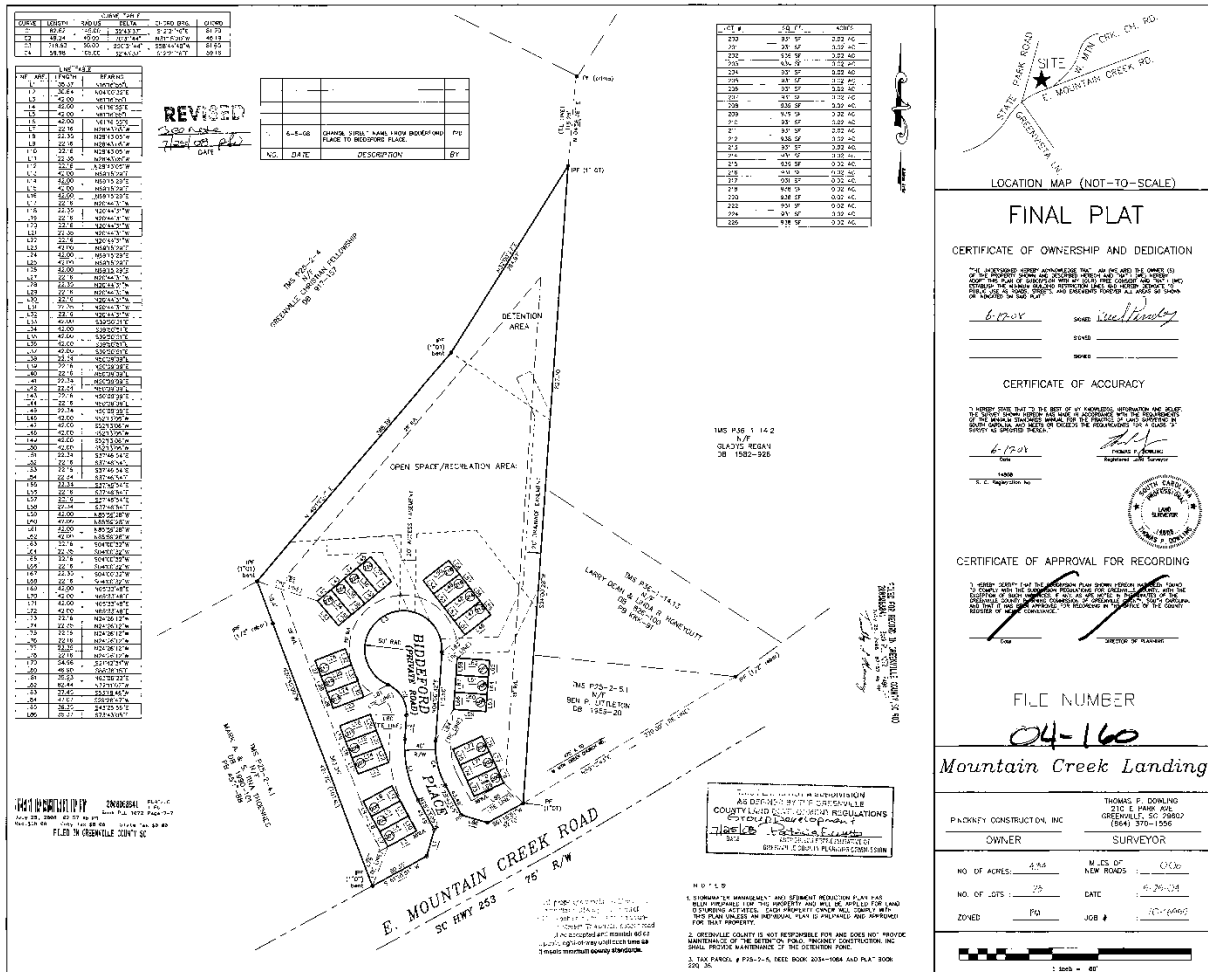
ATTEST:

John E. Lindak

APPROVED BY:

Julie S. McIntyre

STAFF COUNSEL OF SOUTH CAROLINA
DEPARTMENT OF HEALTH AND
ENVIRONMENTAL CONTROL



REPLACES PERMIT ISSUED ON 03/30/04

South Carolina DHEC Department of Health and Environmental Control		PERMIT TO CONSTRUCT - CERTIFICATE OF FINAL APPROVAL Onsite Sewage Treatment and Disposal System	
Permit No.: _____	Type Facility: <u>Community System</u>	TMS#: <u>P25-2-5</u>	
Name: <u>Mountain Creek Landing</u>		Location: <u>East Mountain Creek</u>	Sys. Category: <u>360/150</u>
Subdivision: _____ Street: _____		Address: <u>Road, Greenville County</u>	
Section/Lot: _____		Type Water Supply: <u>Public</u>	
SYSTEM SPECIFICATIONS Max. Est. Daily Flow: <u>4080 GPD</u> Loading Rate: <u>0.3 GPD/SF</u> Tank Size(s): <u>12-1500 GAL</u> <u>SEPTIC TANKS</u> Trenches: Length: <u>3180 L.F.</u> Width: <u>36 IN.</u> Max. Bottom Depth: <u>60 IN.</u> Aggregate Depth: <u>28 IN. DOUBLE STONE</u> Min. Pump Capacity: <u>N/A</u> gpm at <u>N/A</u> ft of Head SPECIAL INSTRUCTIONS/CONDITIONS <u>Installer must schedule a conference with the Greenville County Health Department prior to beginning construction of system.</u> <u>Consulting engineer shall supervise and certify construction of collection system, and provide the Department with written documentation.</u>		PERMIT TO CONSTRUCT (NTS) (SEE APPROVED PLAN) <p>(1) This community onsite wastewater system must be constructed in exact accordance with the Approved Plan prepared by Gray Engineering, Inc. Any deviation from this plan without prior approval from the Division voids this Permit.</p> <p>(2) The Agreement dated July 13, 2006, between Richard Pickney (hereinafter referred to as "Mountain Creek Landing" or the "owner") and the South Carolina Department of Health and Environmental Control (DHEC) is incorporated into this permit by reference. A maximum of seventeen (17) two (2) bedroom units in five (5) separate buildings are permitted, and no additional units may be connected to this system. This project is also known as Mountain Creek Landing located in Greenville County. All of the conditions outlined shall be complied with for the life of the project. If the owner fails to comply with the Agreement conditions, the Department may issue a No Discharge (ND) permit for this project under the provisions of R.61-9.505.</p> <p>(3) The "Inspection and Maintenance Agreement" dated July 13, 2006, between Richard Pickney and Condor Environmental, LLC (hereinafter the operator), is incorporated by reference.</p> <p>(4) Prior to final approval of this system and the occupancy of the project, the owner will provide the Department documentation of the creation and initial funding of the escrow account.</p> <p>(5) The owner will provide DHEC Bureau of Water, on an annual basis, a summary of the number of units connected, the current balance of the escrow account, the current escrow agent and the current group responsible for operation and maintenance of the treatment system.</p> <p>(6) The owner shall provide a report to the DHEC Bureau of Water, beginning five (5) years from the issuance of this permit and continuing every five (5) years, on the septage pumping of each unit to verify that all units have been pumped at least once in five (5) years.</p> <p style="text-align: center;">ANY CHANGE TO SYSTEM MUST BE SUBMITTED BY WRITTEN TO DEPARTMENT PRIOR TO IMPLEMENTATION.</p> <p style="text-align: center;">CERTIFICATE OF FINAL APPROVAL (NTS)</p> <p>(7) Under the provisions of R.61.9, which apply to this project, the owner, or its assigns, shall report any non-compliance with provisions specified in this permit, which may endanger public health or the environment. The owner or the operator shall notify the Department orally within twenty-four (24) hours of becoming aware of such conditions: during normal working hours at (803) 898-4300; after hours, reporting should be made to the 24-hour Emergency Response at (803) 253-6488 or 1-888-481-0125. The owner or the operator shall provide the following information to the Department, in writing, within five (5) days of becoming aware of such conditions:</p> <ol style="list-style-type: none"> A description of the discharge and cause of non-compliance; and The period of non-compliance, including exact dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of non-complying discharge. The owner shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used to the owner to achieve compliance with the conditions of this permit. In addition, the Region 1 Greenville EQC office should also be notified at (864) 241-1090. 	
ACTUAL INSTALLATION Installer: _____ Tank(s) Mfg.: _____ Aggregate Type: _____ Well Installed: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Nearest Actual Distance to: Well: _____ Building: _____ Property Line: _____ Stream/Impoundment: _____ Line No. Elevation Readings Stubout: _____ S/T Inlet: _____ S/T Outlet: _____ _____ _____ _____ _____ _____ _____			
THIS CERTIFICATE OF FINAL APPROVAL IN NO WAY GUARANTEES THE LIFE OF THE SYSTEM OR THAT IT WILL FUNCTION PROPERLY UNDER ANY OR ALL CONDITIONS.			
Issued By:		Date: <u>7/17/06</u> Approved By: _____ Date: _____	



Freeland & Associates, Inc

323 West Stone Ave
Greenville, SC 29609

Tel: (864) 271-4924
Fax: (864) 233-0315

jfreeland@worldnet.att.net

March 23, 2007

Mr. Roger Owens
DHEC
200 University Ridge
Greenville, SC 29602

Re: **Mountain Creek Landin**
Permit No.: 57568

Dear Mr. Owens:

This letter is to certify to the best of my knowledge, information, and belief that the above referenced sanitary sewer collection system has been installed in accordance with the approved plans and specifications and good engineering practice. Please feel free to call with any questions or comments.

Sincerely,
Freeland & Associates, Inc.

A handwritten signature in black ink, appearing to read "D. Kevin Tumblin". The signature is fluid and cursive.

D. Kevin Tumblin, PE, PLS

Enclosure